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AMERICAN BEE JOURNAL

Hamilton, Illinois

THE AMERICAN BEE JOURNAL

HAMILTON, ILLINOIS

Vol. 95, No. 11

November, 1955

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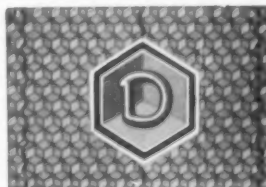
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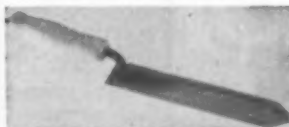
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Comments

COLORADO—This may be of interest to bee movers in long distance hauling. We moved 18 colonies from Michigan to Colorado by screening the tops and entrances. Lost one colony through an accident. Drove steady during the day and rested some at night where there were no lights.—Don W. Corson, Pallisade.

INDIANA—I have been studying the sizes of hives used today and the best size to produce the biggest crop. I use mostly ten frame hives with shallow supers for cut comb honey, with two brood chambers for egg laying room. Most of my hives had seven full supers of honey at the close of the flow. I put a "safety" super on top of the second brood chamber. A few I put way at the top. The ones placed below were drawn and sealed; those at the top were only partly used, proof to me that the bees will store more lower down than they will higher up. Had I known 46 years ago what I know now I would have started with a larger hive like the Modified Dadant. I think too that the bees will store more honey in the larger super, lower down.—Acey D. Zarnes, Westport.

OKLAHOMA—I'm a hobby beekeeper with six colonies but have been interested in bees for thirty years. Have a ready sale for all the honey I produce at 30c a pound. I like to read Dr. Jarvis' articles, questions and answers, and the interesting articles. But, not being a commercial producer I don't care much about prices. We have no inspector and get little advice. We need to encourage beekeeping in Oklahoma for the sake of pollination. This part of Oklahoma is a corn, cotton, alfalfa, clover and vetch country and beekeepers should make money and benefit crops.—Natt Dossey, Okemah.

VERMONT—There is much a person should know if he wishes to avoid cancer. Most important, he should take honey every day. Honey alone will not offset one's bad habits of eating, lack of sleep, and so on but it will help. The human body works on the minimum of what it needs and honey brings to the body a cross section of most that it does need. Honey has food value as well as medicinal value. (Comment by Dr. D. C. Jarvis on a new series about honey, "Honey and Cancer.")

WASHINGTON—Here is the copy of a talk given by Miss Elizabeth Lewis, one of the beginners in beekeeping and a member of the Puget Sound Beekeepers' Association. Miss Lewis is a legal secretary, and has been for twenty-five years, starting when she was wearing short dresses. She has a five-acre tract of land about fifteen miles from Seattle and she has read everything she could find on the theory of keeping bees so her progress has been rapid. However, she says, you can do all the reading you want to do but it is working with the bees that really is the main thing in a beekeeping education. Our University of Washington sponsored five TV programs on beekeeping with our members as the only participants. Miss Lewis took an active part in the programs with Prof. Geo. S. Smith, Capt. L. W. Bundy, Geo. Hundsdofer, Dr. Joe Brugman and myself as President of the Association. (We hope to summarize Miss Lewis' talk in another issue—Ed.)—Eugene A. Mueller, Seattle.

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MARSHFIELD, WISCONSIN

Abroad

England

Nosema . . .

L. Bailey (Rothamsted) finds that contaminated brood combs are a definite factor in Nosema. Much handling of bees and mixing of combs is not good. Cool wet weather is a factor also.

(Bee World)

Inspection before Judging . . .

British Bee Journal in commenting on report of F. G. Smith on Tanganyika Beekeeping says that Smith reports it is practice to assess a consignment of beeswax by a test of breaking the cakes with an axe to check purity and to smell the true aroma.

The editor then comments that "Perhaps some day, our show judges will have the courage and the strength to deal with exhibits this way. It would certainly prevent cakes being judged on the aroma of the honey they've been standing in for the last week and also end the immortality of some of the 'regulars' of the show bench."

Have we any such in the United States? I well remember in the long lost time, scorched alfalfa honey being exhibited as "dewberry" or "blackberry" honey. On the whole, however, exhibitors are a solid honest class.

Bee Stings . . .

H. M. Pearson is the author of a 52 page book, paper bound, on "Bee Stings and How to Avoid Them."

Quite carefully treated are:

1. Construction of the sting and its operation.
2. Chemical composition of bee venom.
3. Effects of stings (due to health, robust or anemic constitution, bodily odor, bodily aroma from cosmetics, tobacco, etc., nervous activity, and allergies).
4. Treatment including partial immunity, use of ammonia etc., as well as use of gentler bees in the first place, handling at best times, etc.

The book is distributed by Bee Publications, Gough Square, London, England, and sells for 4 shillings 6 pence; roughly 75c postpaid.

Production Costs for Honey . . .

A. Ardill, writing in the British Bee Journal, comments that a fair average retail price for honey in the British Isles should be set at 4 shillings (56c) a pound in retail packages. He goes on to show his own costs based on crops of 40, 45, 32, 11 and 7 pounds per colony in each of the last five years.

Too many of us fail to "take an average" in figuring our costs, feeling that the costs for the year may be enough of a criterion of where the selling price should be set. Thus we end up with a possible profit one year only to be stymied by a poor crop or failure year. Years ago I can recall the elder Dadants in a good crop year rolling a line of barrels into the basement of a dry barn to sit as a safety valve for the lean year which might come later. Nowadays such layaways just aren't or we expect a benevolent government to do the storing and even the disposing of our surplus crops.



Sue Bee Says:

WATCH US GROW!!!

We Have Added Another Plant to Our Organization in Order to Better Serve the Beekeeping Industry.

Our new plant is located at Waycross, Georgia, to serve the Southeastern states. We will stock Leahy Woodenware, Sue Bee Foundation, and many other items, all first quality at reasonable prices.

We hope the beekeepers of this area will look to Sioux Honey as a ready market for Honey and Beeswax and as a reliable source of supplies.

The finest laboratory in the Middle West is maintained by this Association in Sioux City. We will test your honey, beeswax or suspected bee diseased combs free. Write or phone us.

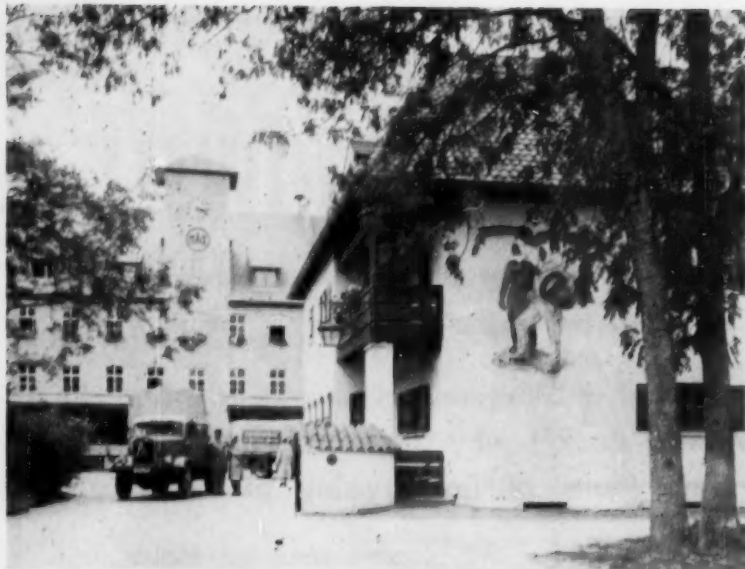
Our rendering facilities can handle all kinds of wax and comb rendering. Give us the opportunity to show you satisfactory returns in pounds of wax obtained from your combs and slumgum at very nominal cost.

A membership in the SIOUX HONEY ASSOCIATION is valuable to every beekeeper, large or small and your inquiry about membership will be welcome.

Sioux Honey Association

Sioux City, Iowa

Lima, Ohio; Rogers, Texas; Tacoma, Washington;
Anaheim, California; Waycross, Georgia



Entrance to the works of Heinrich Mack Nachf in Illertissen, Bavaria

This article is reproduced, with the permission of Mr. Franzke, from the Feb. 1954 issue of *Chemische Industrie*, Journal of the German Chemical Industry, in Düsseldorf, edited by Dr. H. J. von Kutzschenbach and Dr. Alfons Metzner. It was brought to our attention by E. Meschter, of the Public Relations Department of the Link-Belt Company in Chicago.

Bee Venom as a Medicament

Not far from the little market town of Illertissen, on the border between Bavaria and Württemberg, is Europe's largest bee farm; it owes its existence to the therapeutic properties of bee venom.

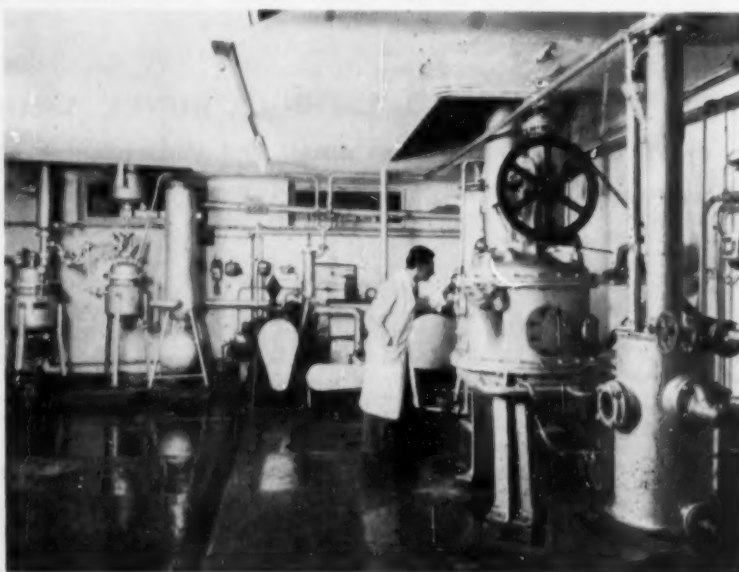
These properties were well known to our ancestors, and indeed to the Ancients, for even in the pre-Christian era, submission to the sting of a bee was regarded as a sovereign remedy for rheumatic complaints. Such a mode of treatment is perhaps on rather too heroic a scale for modern tastes and, additionally, can be practiced only in the warm weather, whereas rheumatic complaints are most irksome in the winter months. Bee venom therapy then could only find universal application when the venom could be made available in a standardized, stable and easily usable form.

For nearly 25 years now, under the trade-mark FORAPIN, Mack have marketed standardized bee venom as an ointment, as a liniment and, in various strengths, as a solution suitable for injection. The way was paved by work at the Pharmacological Institute of Würzburg University, carried out under the direction of F. Flury. The results of the

studies, which form the subject of over one hundred scientific publications, confirms the efficacy of bee venom in the treatment of muscular and articular rheumatism.

In order to meet the demand for preparations based on bee venom, it was necessary to establish a bee farm on a scale not hitherto conceived; within a few years the Mack farm comprised over a thousand communities.

New problems arose and had to be mastered, particularly that of food supplies. "Pastures" for a farm of such a size were a major concern, particularly since bees fly only a radius of about 4 Km. from the hive. The problem was solved by moving the hives, and now, depending on the season of the year and the state of breeding in the community, the bees are moved from one pasture to another in the two areas between the



Processing the bee venom

Black Forest and the Bavarian Forest and the Alps and the Jura.

Bees were brought from Norway and the Balkans, from the Azores and Egypt, from India and other countries, and the various races bred and crossbred in order to achieve the strain with the greatest venom and honey yields. Finally it was found that the Troiseck stock, a Carinthian bee, was most suitable. Today the Mack apiary not only supplies many beekeepers and breeders with queens, artificial swarms and complete colonies, but is also a leading honey producer.

The bees are stimulated to sting a specially prepared foundation material; the poison is then extracted, refined, dried and standardized. As is so often the case, clinical experience has outstripped knowledge of the chemical and pharmacological bases. It is known that the effective constituent of the venom is a protein, and there is knowledge of the amino acids from which the protein is built. It is further known that the cholesterol content of the blood of patients suffering with rheumatism increases on treatment with bee venom, and also that the vitamin C content of the adrenals of experimental rats decreases on treatment with the venom, though remaining constant if the pituitary body is first removed. However, there is much work to be done before a clear picture of bee venom pharmacology will emerge.

At one time the 70 million Mack bees ceased earning their keep in wet weather, now that has been changed. In such circumstances the bees are fed with extracts of medicinal plants and with solutions of drugs, which they accept as nectar, and transform to a medicated honey Melsanin. Further Mack preparations are Melsanol, deproteinized honey, packed in ampoules for injection, and Metonikum, a tonic based on fermented honey (mead).

The bee is not only a "domestic animal" but also a worker in chemical industry, and with its proverbial diligence, its versatility and its reliability, not one of the least.



Packing FORAPIN ointment

Consumer Education to Increase the Use of Honey

by E. C. Bessonnet



Bessonnet in action

THERE have been many ideas presented on ways to increase the use of honey but none has shown the plan we use in Louisiana. Radio, television, and newspaper advertising is expensive, but with proper approach it is possible without any expense to the industry. The program which our Extension Service in Louisiana is offering has created a new interest in honey which is growing each year.

All states have such services, beekeepers looking to the chance of using them. The first step is to have the resolution committee of the state association pass a resolution asking the Extension Service to help beekeepers promote honey through their consumer education program. Next, the committee should contact the Director, present the resolution, and discuss plans that will be effective. This program will, of course, cover the honey produced within the state and no particular brand will be mentioned and everybody benefits when the consumer is convinced of the fine qualities of honey. This type of program is different from brand advertising. I recommend advertising in the area in which they sell. In our business, we make arrangements with large concerns to advertise our honey and we pay for the space. In addition, we further advertise our brand in a way which may not bring too direct results, but we feel that it helps on the long range basis. Getting the consumer acquainted with your brand is essential, but unless the quality is high there will be little or no repeat business which will, of course, destroy the purpose of the whole program.

Honey Is An Impulse Item

Honey is an impulse item and consumers seldom place honey on their grocery list. When the home-maker shops she must be attracted by the display of honey and unless the honey has eye appeal it is passed up. We must remember, too, that shelves in the store must bring in revenue on the basis of square feet and if a product fails to sell itself to justify keeping the space, then the space is reduced. If that does not bring the desired results, the store manager discontinues the product. We must offer a product that sells in enough volume to make it possible to hold the space.

During summer, store managers reduce the display to provide room for items in greater demand in that period; also many summer items, not in great demand in winter, will release more space which may be given to honey when the demand for honey increases.

There should be a steady demand for honey all year but we have not yet convinced the consumer that honey should be a regular part of the diet.

We have found that honey moves better in stores that offer shelf space that meets the eyes without trouble, but that position is usually given to fast selling items. Honey displayed on bottom shelves will not move as freely. If you can become friendly with the store manager and get him to cooperate with you, you may improve your display space, but you will meet with an argument to the effect that shelf space is too valuable for other food items to be used for honey. When we can get more

people to buy more honey, we will be in a better position to ask for better shelf space.

Stores That Sell Honey

Small stores sell little honey. People with money buy at the large super markets, while the low paid people buy at the corner store. Also there is probably a difference in the buying habits and the appreciation of honey by the various groups.

Large super markets are usually owned by a chain and the buying is done at the main office. It is a real job to sell to a chain store; large chains will not introduce new brands. One large chain advised us that we must have our honey distributed in two-thirds of the stores in the city before they would even consider offering our honey.

There is also the problem of uniform quality in constant supply. Remember that honey selling is a specialized field which is entirely separate from honey production and much damage can be done to the cause of increasing the use of honey by bungling the job.

If you can obtain the cooperation of the Extension Service to sponsor a program, you are expected to help by offering honey for demonstration purposes. The American Honey Institute will cooperate with the State Home Demonstration and Nutrition Specialist if help is requested. Be sure you are a supporting member of the Honey Institute before you make such a request, although the Institute does not require that you be a member. Offer your services to address women's clubs, accept offers to speak over the radio or television, and always be willing to do your share.

Our Louisiana Extension Service prepares talks for radio, television, and newspaper articles about honey. In the fall of 1954 during National Honey Month, a state-wide program was planned by all Home Demonstration Agents in all parishes. Over 64,000 folders were distributed that month.

Louisiana is marching forward with a sound program and while the results are not amazing, after three years we feel that the demand for honey is increasing at a favorable rate. If all the states would adopt such a program, we could not produce enough honey to supply the demand in the years ahead.

Check-off Plan Begins . . .

Details of the check-off plan for honey promotion were given in the Editorial in our August number—one cent per sixty pound can from the honey producer and one cent per can from the handler or packer, effective August 1; one of the best moves the industry has ever made. Dealer's stamps run from 25c to \$5. Producer's stamps in same denominations. Stamps are obtainable from L. H. Little, Secretary of the Honey Industry Council, Shelbyville, Tenn. The stamps are in serial number and are made by the American Bank Note Co. Participation is voluntary. Packers who support the plan invite producers to share with them at above rates. Producer will receive from the purchaser of his honey stamps of the value involved as evidence that the purchaser has paid the cash to the Honey Industry Council to be used for honey promotion and for honey research. The following is a list of packers and dealers who are now supporting the plan:

A. I. Root Co. of Syracuse, Bakers Quality Honey, Busy Bee Farms, R. W. Barnes & Son, H. J. Botsford & Co., T. W. Burlison & Son, Felix Braun & Co., R. D. Bradshaw & Sons, Cox's Honey Farms, Clearbrook Honey Farms, Clover Bloom Honey Co., Champlain Valley Apiaries, Florida Honey Co-operative, Jack Gomperts & Co., Hamilton & Co., Honeymoon Products Co., Honey Sales Co., Hudson Tea & Spice Co., Howard Honey House, High Line Apiaries, Johnson's Bee Farms, Kane Import Co., Lush's Luscious Honey, Lose Bros. Inc., Miner Products Co., Merit Food Co., Morton Foods, F. D. Manchester & Son, Melford Olson Honey Co., John J. Paton Co., Inc., Rocke Apiaries, Sioux Honey Association—all locations, Sanders Bee Hive Ranch, Sun Grown Foods Corp., Walter G. Sagunsky, Superior Honey Co.—all locations, L. D. Taylor, Weaver Apiaries, R. B. Willson, Inc., Roscoe F. Wixson, Garden Gold Apiaries.

Lewis P. Baker

Beekeeper, Inspector, and Industry Leader



Picture taken by J. E. Sediak at summer meeting of the Illinois State Association. Left to right, Inspector Killion, John Lis, **PERCY BAKER**, Dr. Milum, and Editor Gale.

A story about Lewis P. (Percy) Baker, written by Roi Ottley, appeared in the Chicago Tribune, Sunday, July 31, and was sent to us by Lawrence H. Juhnke of Display Engineers of Chicago. Don Maxwell, Managing Editor of the Tribune, has given us permission to use parts of the Ottley article. Its title is "10 Million Bees Give Large Scale Negro Keeper a Sweet Income."

It goes on to say that Mr. Baker, long time Glencoe resident, has been keeping bees since 1925 and now has five apiaries. He is also a queen breeder and has shipped queens all over the country and abroad, particularly to the Azores and to Switzerland. His bees are not only kept for the production of honey but also for use in pollination. He is a one man operator and has a completely modern plant for honey handling in the basement of his home, where he also packs his honey and distributes it himself.

He is also a deputy apiary inspector for Illinois and has held this

position since 1933. He is active in all state beekeeping affairs and as an officer of the Cook-DuPage Association he proves one of the most dynamic leaders in the state. When Cook-DuPage puts on a meeting it usually gets a 100-250 attendance and the programs are absorbingly interesting.

Baker, as Roi Ottley says, is a handsome vigorous white-haired man who emanates confidence and knowledge. He was born in Evanston, but reared in Glencoe. His father, Samuel, kept bees too but his hives never prospered. That persuaded Percy to do better. He attended grade school in Glencoe, then the New Trier High School, and later studied agriculture at the University of Illinois. With his bride, Baker moved to the home in which he now lives and where he started with his own bees thirty years ago. He would like to live another thirty years to see what the scientists will have then added to our present knowledge of the honey bee.

Systox - - Another Excellent Insecticide

- - Looks Safe for Bees

by Herman F. Menke

SYSTOX or Demeton, as it is now named, is a remarkable insecticide. It is one of the new systemics; a chemical which is absorbed and translocated by plants in sufficient amounts to render the plants toxic to insects and/or mites feeding on them. The idea of making plants internally resistant to attacking pests or diseases has intrigued biologists for centuries. Leonardo da Vinci, more than four hundred years ago, believed arsenic to be a promising "systemic insecticide." There was other early work, but no real important developments occurred until 1935 when Gerhard Schrader directed new research on systemics at Farbenfabriken Bayer laboratories in Leverkusen, Germany.

He soon developed OMPA (now called Schradan); a very promising systemic presently being tested throughout the United States. By 1948 he had Systox synthesized and the outstanding biological properties of this material were recognized. Systox is potentially effective against many species if sufficiently high dosages are applied. However, within an economically feasible dosage range it exhibits marked specificity in its action against a great number of aphid and mite species.

Its contact action provides a quick initial knockdown, and the systemic properties are responsible for its considerable residual effectiveness. Generally, no harmful toxic residues are present in treated plants at harvest time, if applications are made according to recommendations. Dosages generally range from $\frac{1}{4}$ to $1\frac{1}{2}$ pints of formulated spray concentrate (containing 23% active ingredient) per acre or per hundred gallons of spray, depending upon the crop and upon the insects or mites that are to be controlled. It is not to be applied within twenty-one days of harvest on edible portions of plants. According to von Rümker (1955) Systox was the first systemic insecticide to be approved for use on food crops. In the U. S. it is currently registered nationally for use on apples, potatoes, English walnuts,

cotton and ornamentals. More crops are being added to the approved list all the time.

It has great versatility in the type of application one can use. Systox solutions can be:

- a. applied to seed and thus protect some plants in the seedling stage.
- b. sprinkled on the ground and let plants take it up through their root systems.
- c. sprayed over the plants to be treated.
- d. injected or painted on trunks, branches, or leaves and it is quickly absorbed.

Usually it is absorbed best by young foliage and is translocated toward new growth and upward. Unfortunately, as is true of many organic phosphates, Systox is very toxic to warm-blooded animals (i.e. man). When using it, one should keep in mind its toxicity is about the same as parathion. By this time nearly everyone should be familiar with the extreme safety precautions involved when working with parathion.

Bee scientists were quite concerned when they first heard about the new systemic insecticides. Principally because of the possibility that the toxic material might accumulate in the nectar and/or pollen and thus be an acute hazard. Very little published research work has indicated this is a danger if the proper concentrations of Systox are used.

Metcalf and March (1949) showed Schradan to be completely inactive to bees and houseflies as a control poison, and as compared to other organophosphorous insecticides, to have little inhibiting effect on bee brain cholinesterase. Weaver (1951), the outstanding young bee scientist at Texas A. & M., reported that in field trials on cotton treated with one pound of Schradan per acre, there was little or no mortality among bees which were confined on the crop. There was no indication that the nectar was toxic to the bees. Jones and Thomas (1953) working in England, sprayed the

leaves of white mustard plants, *Sinapis alba*, with radioactive Schradan. They concluded that contamination of nectar and subsequently honey may occur. However, they also point out no crops are now being sprayed which would create a danger but subsidiary weed crops may inadvertently be sprayed. Further work with different plants and different spray concentrations on a large scale are necessary for a fuller appreciation of the precise extent of the hazard involved. The only reason for discussing Schradan is to point out the work done on this related systemic as we do not have as much published information on Systox. However, another important point is that Schradan appears to be leaving more of the predators (beneficial insects) than Systox.

Eckert and Tucker (1954) conducted laboratory feeding tests using Systox and indicated this insecticide was a danger to pollinating insects when applied to blossoming crops. Although they pointed out if plants absorbed it rapidly the danger would be reduced. Liberman et al. (1954) working with honey bees in field tests of insecticides involved in alfalfa seed production, indicated the crop could be treated safely, when in bloom, with 6 ounces of Systox if applied in the early morning. Atkins and Anderson (1954) also found dusts of Systox were relatively safe for bees when tested under laboratory conditions. Dr. Carl Johansen (1954), State College of Washington bee specialist, also found Systox to be relatively safe for bees in some preliminary field tests. Since that time he has done considerable bee poisoning research work under controlled field conditions in blossoming alfalfa (unpublished).

In their 1954 alfalfa seed insect control program the State College of Washington recommended 8 ounces of Systox in 25 gallons of water per acre for controlling pea aphids and mites during bloom. They cautioned not to apply it while the bees were working in the field, and the alfalfa

seed hullings should not be fed to livestock. During Washington's 1954 alfalfa seed production season a number of fields were badly infested with pea aphids during the bloom period. Since the weather was cool, TEPP gave poor control so Systox was the only material that we could use to obtain control and protect the bees. Probably America's first extensive use of this material on alfalfa seed occurred in the Yakima Valley, Washington, last year. Approximately 4-5 thousand acres were treated with dosage rates of 6-8 ounces per acre in 5-8 gallons of water applied by air. In a number of cases fields were sprayed within 50 feet of apiaries before 7 a. m. The spray appears to be somewhat repellent to honey bees for a few hours. No cases of poisoning have been reported, and beekeepers with locations in the region where most of the Systox was used indicated their colonies were in good condition immediately following the spray operation and the months following. Considerable Systox has been used on cotton in California. Dr. J. E. Eckert, University of California, indicated he had not been informed of any serious bee poisoning resulting from its use previous to the 1955 season. During 1955 in the western part of Fresno County, California, there were some large cotton fields in bloom which had a combination of 6 ounces actual Systox, three pounds of toxaphene and one and one-half to two pounds of D.D.T. per acre. Some air applicators were applying this mixture until late morning (10 A. M.) or noon. Following such practices there were signs that colonies in the region had their field forces reduced as much as thirty per cent. We presently feel that 6 ounces of actual Systox, if applied directly on the bees will cause considerable mortality, but when it is applied before, or after, bees are foraging it is relatively safe.

One of the more difficult alfalfa insect pests to control is the yellow clover aphid, *Myzocallis trifolii*. During 1954 one of the worst infestations ever recorded for this pest occurred in parts of New Mexico, Nevada and California. Its economic importance is emphasized by the following USDA report (1955); the 1954 loss in alfalfa production throughout the portion of New Mexico affected was estimated at \$4,000,000.00, in Arizona \$500,000.00 and California \$337,900.00. Presently the clover aphid is a serious threat in Southern California and a poten-

tial serious threat in the lower San Joaquin Valley. California (Sarquis, 1955), the past few weeks, has approved the use of Systox on alfalfa for hay and seed. It must be applied at recommended rates and at least 21 days before harvest if the alfalfa is to be fed to livestock.

With thousands of colonies scattered in seed fields, it would be nearly impossible to remove them, make a treatment and move back. However, the research team of the economic entomologist and the bee specialist have again come up with what looks like the ideal answer. It appears certain that Systox can be applied at proper times using economical rates, giving good residual control of some important pests, selectively leaving most of the beneficial predators and finally not destroying the essential insect pollinators.

According to the Crop Reporting Board of the U. S. Department of Agriculture, the 1955 honey crop is estimated at 243,100,000 pounds—12 per cent more than last year's crop of 217,134,000 pounds.* The number of colonies of honey bees is estimated at 5,238,000—4 per cent fewer than in 1954. Honey production per colony averaged 46.4 pounds, which compares with 39.8 pounds in 1954 and the 1949-53 average of 43.7 pounds. In mid-September, producers had about 92 million pounds of honey on hand for sale as compared with 80 million a year earlier.

It is reported that honey production is above last year in all regions except the South Atlantic and West where it is down 18 and 10 per cent, respectively. Increases from last year were 51 per cent in the East North Central, 29 per cent in the West North Central, 26 per cent in the South Central, and 25 per cent in the North Atlantic area. The crop in the West North Central region is well above last year and many beekeepers in these states report honey yields the best they ever had. Following the late March freeze in the South Central states, conditions were more favorable and honey production is well above last year's short crop. The crop in the North Atlantic states, although above last year, is well below the average for the region due to drouth. The crop in the West was below that of last

Literature Cited

- Atkins, E. L. and L. D. Anderson. 1954. Toxicity of pesticide dusts to honey bees. *Jour. Econ. Ent.* 47(6):969-972.
- Eckert, J. E. and K. W. Tucker. 1954. The toxicity of newer pesticides to honey bees. *Gleanings in Bee Culture* 82:529-531, 570.
- Johansen, C. A. 1954. Bee poisoning versus pea aphid control in alfalfa grown for seed. *Jour. Econ. Ent.* 47(4):715-717.
- Jones, Glynn G. D. and W. D. E. Thomas. 1953. Experiments on the possible contamination of honey with Schradan. *Annals of Applied Biology* 40(3):546-555.
- Lieberman, F. V. et al. 1954. Additional studies on the effect of field applications of insecticides on honey bees. *Jour. Econ. Ent.* 47:316-320.
- Metcalf, R. L. and R. March. 1949. Studies on the mode of action of parathion and its derivatives and their toxicity to insects. *Jour. Econ. Ent.* 42:721.
- von Rümker, Rosmarie. 1955. A review of Systox. *Agricultural Chemicals* 10(1): 47-48, 122-123.
- Sarquis, Armen V. 1955. Suggestions for the control of alfalfa seed pests in Fresno County—1955. University of California, Farm and Home Advisor Office, Fresno, California. 13 pp.
- USD. 1955. The yellow clover aphid on alfalfa. 1954. *Coop. Econ. Insect Rpt.* 5(2):37-40.
- Weaver, N. 1951. Toxicity of organic insecticides to honey bees. Contact spray and field tests. *Jour. Econ. Ent.* 44:393.

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year mainly due to the cool late Spring.

The ten leading honey producing states in order of size of honey crop are California, Minnesota, Iowa, Wisconsin, Florida, Ohio, Texas, Michigan, New York and Indiana. These states produced 62 per cent of the country's crop. Estimated stocks of honey on hand for sale by producers in mid-September totaled 92,445,000 pounds, compared with 80,723,000 pounds last year. Stocks on hand amounted to 38 per cent of production—the same as a year earlier.

* Editor's Note—We are of the opinion that the Nation's honey crop is above that of last year but question that it is as great as reported here.

Indemnity for Diseased Colonies in Quebec

The Minister of Agriculture for the Province of Quebec has announced that, in order to hasten beekeepers in their efforts to combat American foulbrood, an indemnity is to be paid as follows:

\$1.00 for each colony destroyed, plus 4 cents for each drawn comb.
75c for each box hive colony destroyed.

Moffett to Wisconsin . . .

Joseph O. Moffett, of Colorado A&M College, has left the state to spend a year at the University of Wisconsin where he will study for his Doctor's degree.



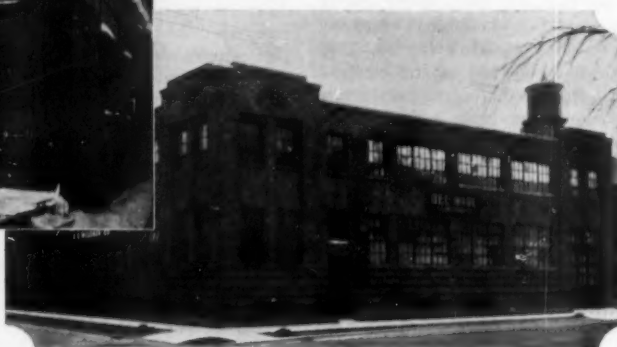
About 1880. Farm house and home yard. L. C. bending over hive; A. G. about six years old. Shed in rear in which colonies were wintered.

Pictured by W. E. Hutchinson, about 1930. New house and home yard. Hives Hilton style, double walled and packed; chaff trays on top for wintering. Once 400-500 of these hives were in use.



About 1910. Building bought in 1896 for \$40 to continue the supply business which started on the farm about five miles away. Still in use as a sales and shipping room.

About 1925, the new building erected in 1924. Semi-basement and machine and metal working shop under nearly all the building. Several hundred thousand smokers, many extractors, metal and fabric supplies went from here all over the world.



Seventy-five Years of Bees and Beekeeping - - *The Story of a Famous Family*

by M. G. Dadant

OURS is a story of the A. G. Woodman Company from its inception. Grand patriarch and founder was L. C. Woodman, born in 1848 on a Michigan farm, and retaining always his love for rural pursuits. By 1870 he had a 40-acre farm of his own and with the determination that he would "not let any grass grow under his feet." Then by 1874 his bent was gradually changing to the fruit-bee idea—and it was about that time that son A. G.

blessed the household. When he was yet a lad his dad took him along to look for his first bees. While dad was dickering, the bees, a short distance away, took opportunity to molest the horses which made a bolt of it, but not before son Bert had flipped over the back endgate to safety.

Well, the ten colonies of bees were traded in exchange for two thoroughbred Durhams worth \$150, and the Woodmans were in the bee busi-

ness. By 1886 there were 12 acres of fruit on the 160 acre farm, two hundred colonies of bees, and the first outapiary established to relieve the congestion at the home apiary, all colonies in Hilton double hives with absorbent covers and in two stories—the second story replaced by absorbent for winter. The 1886 crop from the 50 colony outyard was 7 thousand pounds. L. C. (the father) did all the yard work while the 12-year-old son was in the outyard



L. C. Woodman, the founder

honey house with a cold knife and a 2-frame, top-crank extractor. Honey went into whisky barrels or 10 gallon wooden kegs.

But comb honey looked like a fascinating game with Miller T supers, with 50 thousand Lewis sections and Dadant's section foundation.

By 1890 there were three outyards. A. G. recalls the prize yard at the Bridge Street Ferry, 100 colonies, all in tiptop shape, Hilton hives, nice shade, beautiful green grass nipped close by a few cattle, the only flaw being a few resultant pancakes which had to be removed when dry.

A. G. looked after the three outyards by himself, hauling supplies with the wagon when necessary, going the ten or twelve miles on his bike most of the time. Cooked his own meals too. He could cook bacon, eggs and potatoes on the same sand-spit, and it served as serving plate as well, to save any washing because the spit was going to be used next meal anyway. But he soon learned not to put too many dry beans in the thing. They had a way of swelling beyond all belief.

By that time A. G. had a habit of looking only one way down the road at the ferry yard. The young lady, mornings, would come out and toss her braided locks as she went her way to the post office. Sometimes then, the girl got her granddad to let her haul the grain to the grist mill, and, of course, A. G. naturally had to offer to go along and be of use. When he found a fresh baked cherry pie behind the honey house door, the jig was up. The wedding was in 1900. Poor A. G. didn't know until afterward that her mother had connived and made the pie herself. But the results couldn't have been better in any case.

Basswood was plentiful in those days. A. G. recalls 1,000 acres of virgin timber, mostly basswood a half-mile from the Bridge Street yard. But while a bumper producer, basswood wasn't invincible and 1893 was one of those plumb failures,



A. G. Woodman, the son

which were to be approached more often as the woods were cleared, more land cut into tith, and swamps drained.

It was about this time that Doolittle had written his epoch making book on queen rearing and the younger Woodman grabbed it at once, for queens for himself and a few for the trade. BUT HE LEARNED ONE THING AT LEAST from their experiences—you cannot raise queens in a slack year unless you pour in the feed. No feed, no queens.

1893 was a crop failure to be repeated by another basswood and general failure forty years later. L. C. (the elder) decided that the locations were of no further value, but the next year he took 12 colonies and by fall had 61 booming colonies for winter.

Still the distant fields looked greener. Forest fires; then came the wild raspberry, the fireweed, and there were fields of milkweed like fields of grain. He moved a carload of bees to Benzie County in North Michigan. It was a long laborious job: prepare, screen, load in hay wagons, unload onto the car, then the same process repeated at the other end. And when A. G. went back home to pick up a few covers, etc., there was a cluster of bees as big as two bushel baskets, wanderers who hadn't returned from the fields before, and they were far from pleased, stung the team, forced hauling the stuff by man and wagon power until the horses could be rehitched. They learned that keeping a lighted smoker is a must when moving. (We used cotton batting for the holes to good effect too. Ed.)

That period from 1885 to 1905 was a busy one, 500 colonies, 120 acres of fruit including 15 acres of raspberries—and mostly section honey,



Baxter (ABC) Woodman, grandson

to make for swarms. But L. C. didn't mind the swarms. They had plenty of help, and the new swarms worked harder than the old staid colonies, and they made a good place to assemble unfinished sections for completion.

By this time the father had expanded to 3 carloads of moving. But A. G., the son, had been selling, a job his dad gladly left to him. Peaches, plums, apples, berries, comb and extracted honey, and an ever increasing trade from the beekeepers who were seeking them out for supplies. When two carloads came in from Lewis with a big shipment of Dadant's foundation, Bert decided that the five-mile haul back and forth to the farm was too much and bought for \$40 an old building in town which did him very well until 1924 when the new building and present one was set in place of the old one.

But L. C. was not of or for the trade or factory. He remained with his love of bees and fruit paring his operations as the years passed until he died in 1920.

To illustrate the volume and enthusiasm of honey production in those early days, in the big 1903 crop, between Root's Hunt at East Lansing and Lewis' Woodman in Grand Rapids, three and a third million sections were turned over to Michigan beekeepers at a price of \$3.50 to \$4.00 a thousand and comb honey moved out by the carload, as it did from many points in Colorado under the management of Rauchfuss of the Colorado Honey Producers.

Again the 1903 winter was a "killer." Some lost all their bees. But it came back and beautiful Michigan comb honey with it.

But ominous clouds were building and after the start of the first World War in Europe, the government called on the beekeepers to boost their production of honey. Here came the change from comb to extracted

(Please turn to page 441)

Wallowing in the Witch's Brew¹

by T. A. Gochnauer

Dr. T. A. Gochnauer is a young man who brings to bear on our bee disease problems an active mind, a vigorous approach, and no inhibitions or prejudice. Here he covers our modern conception of disease control with thoroughness and with safe advice. Tom was born in 1919 in Appleton, Wisconsin, on July 29. In school he received his B.A. degree from Lawrence College in Appleton in 1941; his M.S. degree in bacteriology from the University of Wisconsin in 1947; his Ph.D. from the University of Wisconsin in 1949. He did graduate work on mastitis in dairy cattle and the effects of antibiotic treatment. Some of the principles and problems are remarkably similar to the chemical treatment of diseases of the honey bee—toxicity to cattle of some of the treatments, recurrent infections following treatment, development of resistant bacteria, and so on. He came to the University of Minnesota in October in 1949 where he has since done work on the resistance of *Bacillus larvae* to various antibiotics, the toxicity of antibiotics for honey bees, bacteriophages for *B. larvae*, the effects of antibiotics in field infection.



THE initial successes of antibiotics and sulfonamides in medical practice led to a sort of rosy honeymoon in which some seers predicted the disappearance of infectious diseases from the earth. The rise, in the wake of this false assumption, of resistant bacterial strains, allergic reactions, and non-bacterial infections led the pessimists to predict that the honeymoon was not only over but that divorce was imminent.

Since that time, medical science has adjusted to the new course of diseases under the influence of the antibiotic age, and a multiplicity of new antibiotics and other disease-preventive agents have appeared. Patients sensitive to one compound may be treated with another, or with a chemically modified form of the first. Resistant infections may be held in check by combinations of compounds, and more routine studies may be made to detect the sensitivity of various disease agents to the various drugs, so that the best drug might be chosen. People still develop infectious diseases, and many die from them. But the chances for individual safe recovery have risen in many cases to a much higher level than in previous times.

In a sense, a similar pattern has occurred in beekeeping. The initial flush of success following the introduction of sulfathiazole was quickly dimmed by reports of recurrent disease in treated colonies, and questions were raised concerning contamination of market honey by the chemical. The possibility of development of sulfa-fast strains of *Bacillus larvae*, the cause of American foulbrood, was also raised. Nevertheless, the potential worth of sulfathiazole and other medicants was considered so worth while that many investigations into methods of improving treatment procedures, as well as development of newer chemicals for treatment, have proceeded. The principles of the chemical method of treatment, as they now stand, include the following:

1. The chemicals used do not kill the infectious organisms but inhibit their growth during a period which the colony can use to remove the infective material without spread of disease to healthy larvae.

2. Colonies undergoing treatment must be retained at a high level of activity, and any procedure which helps bring this state about is helpful; booster packages, syrup feeding, active stocks of bees, multiple queen hives, all may be effective aids.

3. Treatment should consider control of all likely controllable diseases

in an orderly system of management. A program that protects solely against American foulbrood disease may, for example, be totally ineffective when confronted with European foulbrood disease.

4. Preventive treatment is far more effective than are attempts to bring about cures. Preventive treatment is embodied in a planned program such as is envisioned under heading 3. If it is combined with a good inspection and management system, preventive treatment cannot be considered "promiscuous feeding."

5. Where a disease problem of a serious nature exists, it is important to extend the treatment period over as long an interval as possible. This extension may be accomplished by using a variety of methods of application and in part by a variety of materials. For example, if a mixture of AFB and EFB affects an apiary, early feedings of sulfathiazole may be expected to control the former disease, and have little toxic effect on the colony. As the colony develops, the treatment may be altered to include Terramycin dusts. This plan of treatment avoids the difficulty in feeding sulfa in syrup during minor flows in the build-up season, avoids the toxic effect of Terramycin on weak colonies, acts to prevent too large a build-up of chemical-resistant bacilli, and ex-

¹ Paper No. 305 Miscellaneous Journal Series, Minnesota Agricultural Experiment Station, St. Paul 1, Minnesota.

tends the length of time that chemicals may be fed without danger of contamination of the market honey. Since Terramycin is less stable in solution than is sulfathiazole, it can be expected to break down before honey containing noticeable amounts reaches the market. The question of whether Terramycin degradation products, if they could be measured, would be harmful or not is unanswered here.

The assumption must not be made, however, that Terramycin is a "wonder drug" which can be administered at any time and bring about miraculous improvement in colony condition. Nor should it be said that dusts are the best form of application, all other factors being equal. Field experience has indicated that little curative effect can be expected from Terramycin administered to colonies in Minnesota after mid-June only, at least by the dusting method. Dusts are convenient forms of application, and thus attractive to beekeepers, but their most important virtue is the ease of application during a minor flow, and their ready dispersal in a hive. Anderson¹ has reported failure to control American foulbrood by sulfapowdered sugar dusts in his experiments in Pennsylvania.

Studies on treatment with Terramycin, erythromycin, and Oxamycin, respectively, on a combined outbreak of American and European foulbrood in a single bee yard² gave evidence of the failure of midsummer dustings to control either disease. The European foulbrood diminished with time in treated and untreated colonies alike. American foulbrood appeared in increasing intensity throughout almost all colonies showing an initial European foulbrood infection. Again, there was no difference between treated and untreated colonies. A total of one-half gram active material was used.

There appeared to be some protective effect by dustings given colonies showing no initial infection. The spread of both AFB and EFB to untreated previously uninfected colonies was substantially higher than to previously uninfected colonies given a total of a half gram in two doses of either Terramycin or erythromycin in dust form. It will be interesting to repeat this experiment next year, when it is hoped the colonies can receive an initial feed of sulfa syrup, to be followed with Terramycin dusts on a regular and



Top dusting of colony with dry material for disease control.



Dusting colony at entrance with a dust gun which secures very thorough distribution.



Spraying or dusting the individual comb is sometimes done in disease control.

early schedule. Experiments that need to be repeated will include a better check on the time of treatment versus results. If it can be concluded that treatment should begin at a certain date rather than with the first appearance of a bee disease, a considerable gain can be recorded in methodology of bee disease control. In this respect, the appliers of insecticides are much further advanced than are those using chemical control of bee diseases. The former have well-planned spray schedules worked out for many insect pests and the climatic conditions affecting their development. Bee disease control is still a rule of thumb procedure, and a pretty crude rule at that.

Chemical control of Nosema disease is still in its infancy. The active agent, fumagillin, has been conclusively proved an effective counteragent for the control of the parasite, *Nosema apis*^{3,4}. Technical and methodological questions as to its proper use need further investigation. Questions have been raised concerning its suitability for use with sulfathiazole, as there seems to be evidence that sodium sulfathiazole, at least, produces a solution too alkaline for best stability of the fumagillin⁵. Fumagillin is currently prepared as a salt with buffers added to maintain the proper degree of acidity of the solution. Should further research prove the two agents incompatible in the same solution, some alternative approaches to the situation may be attempted.

Some of the most obvious include:

1. Use of Fumidil B, the commercial fumagillin preparation, in powdered form mixed with powdered sugar as an attractant.
2. Use of Fumidil B and sodium sulfathiazole as separate medicants applied in separate treatments.
3. Use of Fumidil B alone, followed, when necessary, by Terramycin or other application as the season allows; such use might be best attempted in areas where European foulbrood, not American foulbrood, is the major brood problem.

We have briefly attempted the control of *Nosema* infections by use of powdered Fumidil B and powdered sugar. The result, insofar as actual *Nosema* infection was concerned, was either negative or indecisive. One commercial apiary received a dusting of Fumidil B, using one teaspoonful per colony plus a tablespoon of powdered sugar. Unfortunately (for the purposes of the experiment) none of the colonies had any microscopically evident *Nosema* disease, although the yard had suffered heavily the previous year from the disease. A later report by the owner stated that supersedure was markedly reduced in the yard compared to other yards without any treatment⁶. One of the University apiaries was examined before treatment on May 1, 1955, and found to have a heavy infection in the overwintered colonies. One teaspoonful of Fumidil B as a powder was given to test colonies in this yard. The recovery rate of the colonies was rapid, supposedly the result of the warm dry spring, and there was no difference between the rate of the treated vs. untreated colonies on examination on June 21. Colonies treated with Fumidil B dust appeared to have a slightly higher brood count as determined by M. H. Haydak in his observations on the colonies on June 16, but they were favored to some degree by having an initially higher brood count at or near the start of treatment. The disease rate average of 12 treated colonies fell from a level of 1.75 (equals nearly a "moderate infection") to an average of 0.41, (equals a "trace" of infection); colonies receiving powdered sugar only fell from 1.89 to 0.33, a nearly identical figure. The amount of brood in the Fumidil-treated colonies was recorded at an average of 6.5 frames at the start, rising to 8 frames at the finish of the observa-

tions. Brood frame average counts in the untreated group, eight in number, rose from 5.25 to 6.35 during the same period. Thus we have a gain averaging 1.5 frames per colony in the treated group compared with the 1.1 frame gain in the untreated group. It would at least seem that the Fumidil treatment as applied did the brood rearing no harm.

Two commercial operators⁷ combined to administer Fumidil B in syrup as recommended by the manufacturer to package colonies and noted the following results in connection with the effect of Fumidil B on supersedure of queens in package colonies.

Colony examination	Fumidil B, 105 pkgs.	Honey only, 20 pkgs.
Supersedure in 10 days	8	9
Supersedure 10 days to 2 months	0	0
Queenless, 10 days	1	1

The figures, on casual glance, may seem to be identical, until one remembers that the rate of supersedure in Fumidil B fed colonies was 8/105, about 8 per cent, and was 9/20 in untreated packages, or 45 per cent. It would have been helpful in this case had equal numbers of packages been used in both treatments, but further study will help fill this gap.

Their findings indicate that Fumidil B may be of some benefit, although they also noted the helpful effects of the rather warm spring in all colonies whether treated or untreated. They concluded that more years of study under varying weather conditions will be required before the long term effects of feeding of Fumidil B on queen supersedure can be established in commercial apiaries, but that the results have encouraged them to continue such tests the next year.

The activity of interested commercial men in this field is an encouraging sign. The most convincing demonstration of the effect of some system of management is one that the beekeeper can show to his own satisfaction in his own bee yard. While beekeepers and state apiarists are justifiably uneasy about the prospect of many beekeepers experimenting with controls of American foulbrood in their own apiaries, perhaps *Nosema* offers a less dangerous and more rewarding prospect for such efforts. We must keep in mind, of course, that there are many potential causes of queen failure, of which *Nosema* is but one.

Chemical control, then, is proving a helpful ally in combatting many bee diseases. It cannot, and is not intended to, replace common sense means of disease prevention and control, but is rather to be used as a supplement to help prevent spread of infection. A surgeon, removing an infected area from a human patient, will take care to see that he does not spread the infection by means of his own surgery, and will at the same time administer an antibiotic to guard against such a possibility.

Chemical control in beekeeping follows a remarkably similar procedure.

Chemical control is far from being the only weapon used or being studied for the control of bee diseases. Case histories of previous outbreaks in a given area, such as are maintained by many state apiarists, play a very important part. Last year, two or three commercial apiaries in Minnesota reported heavy losses of adult bees from a diagnosed *Nosema* infection. Quite naturally, considerable watch was kept on these colonies during their development this spring and early summer. Microscopic examinations of samples of adult bees submitted from wintered colonies were made from time to time until it was obvious that no substantial outbreak could be expected this spring, and that treatment was largely unnecessary. Package bees being maintained in the same operations, on the other hand, showed a light to moderate initial infection, and treatment was recommended for them.

Microscopic examination of adult bees from overwintered and package colonies. Western Minnesota—

Package yards—

Yard No.	Ratio cols. infected
1	6/10 colonies infected
2	0/5
3	5/5
4	1/5

Total 12/25 colonies infected

Overwintered yards—

Yard No.	Ratio cols. infected
1	0/5 colonies infected
2	1/5
3	1/4
4	0/5

Total 2/18 colonies infected

One may speculate that the mild winter and warm spring played a part in the freedom of overwintered yards from infection, while the cold spring in the South may have re-

sulted in the relatively high rate of infection in the packages examined.

Future developments in bee disease control are not limited to tests of more and more chemicals for the various bee diseases. Improvements in diagnostic methods are an urgent need. A rapid field test for the presence of Nosema in adult bees would be a boon to control of that disease; the extension of bacteriophage analysis⁸ to cases of supposed importation of American foulbrood may help state apiarists detect and confine the spread of disease from outlying areas; the use of ultraviolet light to detect remnants of infection in brood combs⁹ may be improved and ex-

tended; disease resistant stock is sure to be one dividend from the extensive work in bee genetics which is being carried on in many parts of the nation. Proper education of the beekeeper concerning disease and insecticide hazards which he may face in beekeeping is a concern which should be felt by all members of the industry. To this end, a colored movie film describing and demonstrating the bee diseases, the insecticide hazards, and ways and means of combatting them would do a distinct service to beekeeping. The battle against these hazards is one that requires the fullest cooperation and mutual assistance between re-

search groups, beekeepers, enforcement agencies, bee journals and all other interested parties, if success is to be assured even for the present and the easily foreseen future.

References

1. Anderson, E. J. 1954. Science for the Farmer, N. S. 1(3): 3-4.
2. Gochnauer, T. A. 1955. Unpublished data.
3. Katznelson, H., and Jamieson, C. A. 1952. Science 115(2977): 70-71.
4. Farrar, C. L. 1954. Amer. Bee J., 94(2): 52-53.
5. Cmejla, H. E., and Otto, G. F. 1955. Shop Talk 2: 2.
6. Bunch, F. Q. 1955. Personal communication.
7. Stewart, H., and Garner, J. F. 1955. Personal communication.
8. Gochnauer, T. A. 1955. Bee World 36(6): 101-103.
9. Michael, A. S. 1951. Gleanings in Bee Culture 79(11): 654-655.

Honey Guide Helps Research

I subjoin an item of news which has appeared in our local paper, "The Cape Times." You probably have heard of these birds having arrived in Washington and it will be interesting to hear the results of the research being made. Any information you can, in due course, give me, will be much appreciated.

WASHINGTON—A bird that has helped African honeyhunters to find hidden bees' nests may also lead scientists to an effective weapon against the hardy tuberculosis germ.

The bird, the African Greater Honey guide, is the only living creature other than the wax moth larva, known to digest wax.

Dr. Herbert Friedman, of the Smithsonian Institute, said study of this digestive faculty may help researchers find a substance capable of piercing the waxy "coat" that protects the body's own defense mechanism.

This waxy "coat" has long been considered a major stumbling-block to successful tuberculosis therapy.

Living specimens of the bird have been flown to the Army Medical Center in Washington for careful study.

The honey guide, not itself a honey-eater, feeds on the wax shell of bees' nests, but before it does so the nests must be broken open. To accomplish this the honey guide has learned to attract the attention of a human being and guide him to the hidden cache of honey.

After the man breaks open the nest and eats its contents, the honey guide proceeds with its own feast—the wax shell left behind.—(Sapa-Reuter.)

Louis Hardwick, Editor
South African Bee Journal



PENNSYLVANIA . . .

The most recent pose of some of those who were at the beekeeping short course at Pennsylvania State University August 22-27. Professor E. J. Anderson (Andy) commands there in front with folded arms. W. W. (Bill) Clark, Extension Beekeeper, is at the left in the drop down position in the back row, right next to that old goat, Editor Cale. Then third from the right in front is that old campaigner and veteran extension man, George Rea, and at right end Dr. Anderson, head of the Department of Entomology. And what a course (only two or three repeaters); a whole week of work out,

more time with the bees and in the laboratory than in the class room. It was a real short course too, not a University size convention—discussions of equipment, how to begin with bees, colony activities, management, work in the bee yards, packages, queens, honey production, diseases, marketing, all day long and all evening long. Andy and Bill did a job, a real one. We cannot recommend too highly that the true beginner, as well as the experienced beekeeper, will find in the Pennsylvania Short Course a schooling that will be of great value.



H. R. Swisher, President of the Ohio State Association, presents trophy to Mrs. Lucille Temple of Brecksville, Ohio, chosen as Ohio Honey Queen for 1965.

Honey Queens and Honey Week Promotions

by H. R. Swisher

WE know about city queens, state queens, onion queens, apple queens, peach queens and so on, one after the other. When honey queens are proposed, some put their hands over their ears and stick their heads in the sand like an ostrich. It is perhaps a natural reaction since the effect of previous queen contests has been so short lasting. Winners may be chosen for their beauty and pleasant attributes and the choice is soon forgotten until another season rolls around when the stunt is put on all over again. In this seeming nonsense, those who promote such contests must know from experience that it pays. Other people in business who spend hard dollars are not likely to look at birds in the bushes, unless they get back a few bucks in the hand.

We are all interested in exploring every chance to get a few more bucks in our hands. The per capita consumption of honey in this country leaves a great deal to be desired. Since we have the opportunity of contacting the retail and wholesale honey trade, it is discouraging to find so many good citizens who have never even tasted honey. Of course our American Honey Institute and other interested groups are doing wonders in promotion, but we still have millions of people who do not know how good honey really is. We hope these agencies will keep on doing a fine job, but there are more ways than one to "skin a cat." The more ways that offer an opportunity to bring honey before our buying public, the better.

Around this time last year a National Honey Queen committee was appointed and some planning was done along the line of choosing a national honey queen to tie in with our Honey Week promotion. The plan was worthy but it cost a little money so the idea died quickly. It



FEDERATION OFFICERS AND QUEEN

Federation Convention Queen, Monica Siegham, guards the 1955 Officers of the American Beekeeping Federation—left to right: Robert Banker, Cannon Falls, Minnesota, Secretary; Henry Schaefer, Osseo, Wisconsin, President, and E. Joaquin Watkins, Fruita, Colorado, Vice President. (Queen Monica was born in London, England; has lived here about 18 years. Maybe she should be called an International Queen.)

is well known that most beekeepers and a buck are like Damon and Pythias. It's not different here in Ohio than anywhere else. Our boys have worked their hearts out trying to keep the state organization going and they know what this is all about. Let's each ask if we are members of the American Beekeeping Federation, American Honey Institute, and our state organization. It is hard to put your shoulder to the wheel while you are on the outside looking in.

It is always a lot of fun to go around Robin Hood's barn to get to a point. So let's get to the point which is to consider what we should look for in a honey queen. That word "honey" makes it different from any other variety of queens. Honey, from the beginning, has been considered as something superlative, something beyond the ordinary. So our Honey Queen must be a very special kind of queen. Then, when we approach newsmen, and radio or television interests we will really have something to talk about.

Since our honey queen is going to be a super-special queen, it is up to us to choose one who really is special. If she is beautiful, so much the better. However, beauty must be secondary to personality and "honey" know-how. I think she should be the daughter, sister, or wife of a beekeeper. Don't get the idea that they will measure short. I know, from two years' experience in our Ohio honey queen contests, that the beekeeper contestants really were "honeys." All sympathy went to the judges who had to make a difficult decision as well as to the families of contestants who might have been winners.

A contest of this kind is a valuable asset in the convention at which it is held. Add the accompanying members of the contestants' families and their friends as well as those who might otherwise not have been present, and it swells the total. Should we ever choose a National Queen all politics should be set aside and a candidate chosen who will have the poise and personality to catch public fancy thus enabling us to capture that extra publicity for our product and so help us earn that extra buck we can so easily use.

Those who attended the Federation Convention in Chicago last January will remember Miss Monica Seigham who was the Convention Honey Queen. She possessed outstanding personality that made it easy to have her introduced in the

programs so that honey was called to the attention of thousands at little cost.

It is to be hoped that, should we choose a National Honey Queen by way of state contestants, some money will be available for a short program on a national television hookup each day during October Honey Week. During this same period, the state and regional queens could be introduced in their areas on regular programs. If the programs in each area are contacted you will be surprised how many will be glad to cooperate. The newspaper, radio and television time will do much to increase our honey consumption.

Let's bring a plan to Biloxi in January for the Federation Convention and see what can be worked out.

The Honey Cook Book



Author Juliette Elkon

Hot off the press is the first general cookbook to sing the virtues and benefits of the world's oldest sweet: honey. This is "The Honey Cookbook" by Juliette Elkon, published by Alfred A. Knopf, Inc., 501 Madison Ave., New York City. The author is a beekeeper and gentlewoman farmer, a native of Belgium who came to America in 1940. She is also a writer who was assistant editor of New York's French-language newspaper, "France-Amérique" from 1945 to 1949.

The Honey Cookbook contains more than 250 recipes for relishes, cereals, puddings, candies, punches and sherbets, some from the time of the Egyptian Pharaohs and others that have originated in Mrs. Elkon's own kitchen. Original recipes are tagged "My Own," and are a challenge for any good cook to try. Different sections of this unusual vol-

ume are prefaced with an interesting page or two of findings from the author's research into ancient honey cookery. Some recipes perfected by the American Honey Institute are included. Besides the recipes mentioned above, the cook looking for new palate teasers will find honey used in cakes, hors d'oeuvres, meats, vegetables, and desserts. At the back is an explanation of the physical and chemical properties of extracted honey.

This is a volume any honey producer or his wife would enjoy owning. It is an idea for Christmas gifts too. The cookbook is priced at \$3.00 and may be obtained from the publisher or from the American Bee Journal.

SEVENTY-FIVE YEARS—

(Continued from page 435)

honey, a change which was to become almost universal by the time of the second war.

So A. G. Woodman ploughed along in his business, sharing the Michigan beekeepers' encouragements and disappointments with the changing seasons.

In 1912, T. F. Bingham sold his bee smoker business to Woodman. In 1928, Woodman with his ingenious turn of mind got out his Universal four-basket excellent extractor and was testing other devices.

But in the meantime, the family had grown up. Rhoda had married and moved to Rockford with her struggling, but successful lawyer husband. Virginia had found her calling in social settlement work, and the son, Baxter (A.B.C.) was ripe to be taken into the business (1928).

Here was another significant turning point. Now A. G. the father could turn the busy distraction of modern business to his own son and take for his vocation, or perhaps full time avocation, something he loved. No farm, no desk, much; just try to devise or perfect apparatus which would make it easier for the beekeeper to do his work. The wax extractor, the radial, the merry-go-round, cappings melters, tanks with automatic contacts or not, knives, vells, better smokers, and a host of whatnots on all the apparatus.

If there only were more space in which to continue with the many reminiscences that could profitably be spun from what we know about this famous family it would really make good reading. We hope to work some of this material into short stories in some of our future issues.

Some Remarks on Langstroth Hives

by F. R. Shaw and D. Sutherland

Department of Entomology, University of Massachusetts

FOR some time we have been receiving requests from various sources as to the construction of the original Langstroth hive. Due to the foresight of Dr. B. N. Gates, formerly of this department, we are fortunate in having a collection of early hives and other beekeeping equipment. One of the hives was labeled "Original Langstroth" and was dated about 1875. We have shown this hive to many beekeepers and others interested in the history of beekeeping.

As a result of the many requests that came to us, we decided to prepare some plans giving the dimensions of a single storied Langstroth hive based on our "Original Langstroth Hive." The junior author prepared the drawings (figs. 1 and 2).

Basically this hive consisted of a bottom with a portico, a glassed-in enclosure which supported the

frames, paired honey boards on which wooden or glass receptacles for surplus honey could be placed and a large cover which also served to close the hive on the sides and back.

In the illustrations, all pieces separated and given dimensions on figure 1 are of $\frac{3}{8}$ " thickness with the exception of two pieces for which crosscut measurements have been given. On figure 2 the thickness of stock has been given; if no measurements are given, it is of $\frac{3}{8}$ " thickness. All frame parts are $\frac{3}{8}$ " thick. The holes of the honey boards have a $\frac{3}{8}$ " diameter, while those of the baseboard have a $\frac{1}{2}$ " diameter and are placed 6" from the front edge.

Subsequently to the preparation of these illustrations, the senior author had the opportunity to examine a copy of a third edition of Langstroth's "Hive and the Honeybee." In

this edition there are many illustrations of various types of hive. Somewhat to our surprise, Langstroth in 1862 considered that our "Original Langstroth," figure 3, was primarily suited for use as an observation hive and was not primarily intended for the general beekeeper.

Inasmuch as this information presented a new concept to us, we felt that further investigation was warranted. We had a copy of the first edition of Langstroth 1851, but had not the opportunity to consult the second edition which appeared in 1857. Through the courtesy of Dr. E. J. Dyce, of Cornell University, we were able to borrow a copy of the second edition. This proved to have illustrations of the same hives which are shown in the third edition. However some of Langstroth's views on the various types of hives had changed between 1857 and 1862.

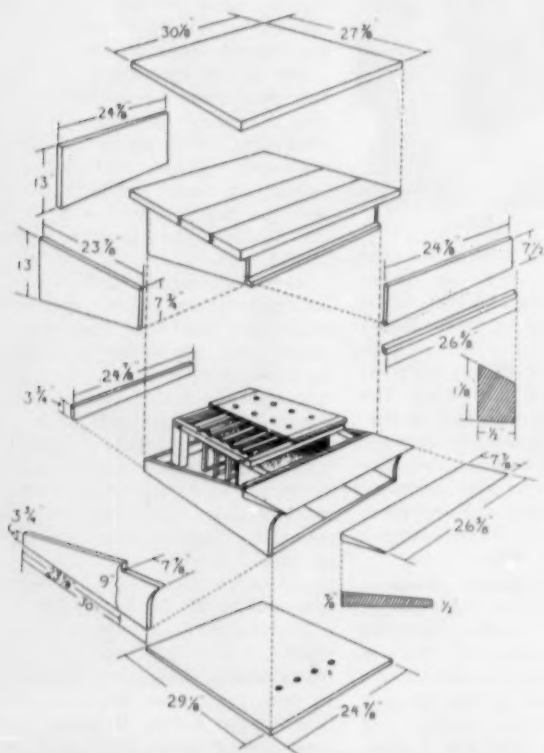


Fig. 1. Dimensions and construction of hive labelled "Original Langstroth" in the collection in the museum at the University of Massachusetts.

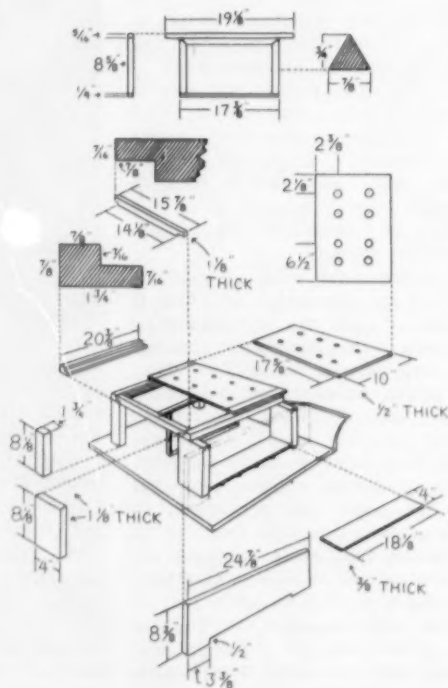


Fig. 2. Details of construction of frame, frame supports, and honeyboards of the hive shown in Fig. 1.

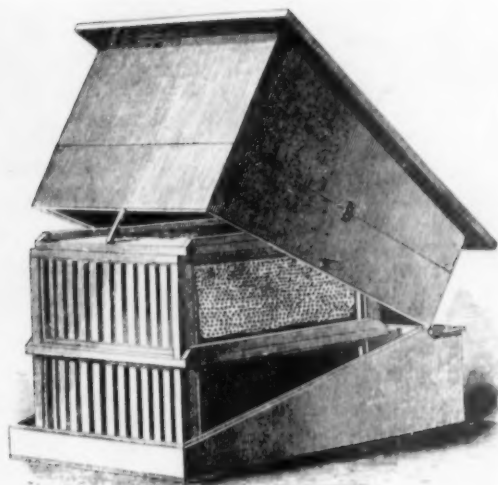


Fig. 3. The hive best suited for observation purposes—Langstroth 1857.

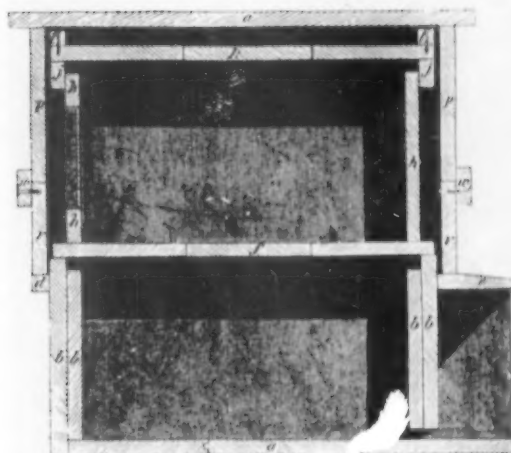


Fig. 4. The hive best suited for general use—Langstroth 1857.

Thus in 1857, Langstroth indicated that our hive, figure 3, was admirably suited to the purpose of general observation. At the same time he states that the type we show as figure 4, "in one of the three forms given is recommended as best for general use."

As a result of our examination of the early editions of Langstroth's "Hive and the Honeybee" it appears that Langstroth had developed sev-

eral types of hives depending on the purpose for which the beekeeper wished to use them. Thus for the person who wished to have bees for study or for a hobby, he suggested a hive based on the type shown in figure 3. For the practical beekeeper he suggests one of several modifications of the type shown in figure 4.

Inasmuch as there appeared to be somewhat of a discrepancy as to the type of the hive originally designed

by Langstroth, we felt that our observations would be of value in indicating that Langstroth designed several types of hives, their construction depending upon their intended use.

References

- Langstroth, L. L.
1853. *The Hive and the Honeybee*, 1st ed. Hopkins, Bridgman & Co. 384 pp.
1857. *A Practical Treatise on the Hive and the Honeybee*, 2nd ed. C. M. Saxton. 534 pp. illus.
1862. *A Practical Treatise on the Hive and the Honeybee*, 3rd ed. C. M. Saxton. 409 pp. illus.

Ways to Help Honey Sales

by E. H. Adee

We as beekeepers have talked for years about the necessity for getting the younger generation to use honey if we are to maintain and enlarge our markets both now and in the future.

In searching about for means to do this, a good method appeared to us to be through the 4-H Clubs, so the 4-H Honey Baking Contest was decided upon. Two counties in Nebraska put this contest on two years ago and the past year it was held in four counties. In counties where it was held for two years beekeepers estimated that sales increased from 50% up.

The results of these contests and the method used to present them were given at the meeting of the "500 Club" in Chicago and as a result 18 individuals in nine different states agreed to hold similar contests. Since then two more states have been added to the list.

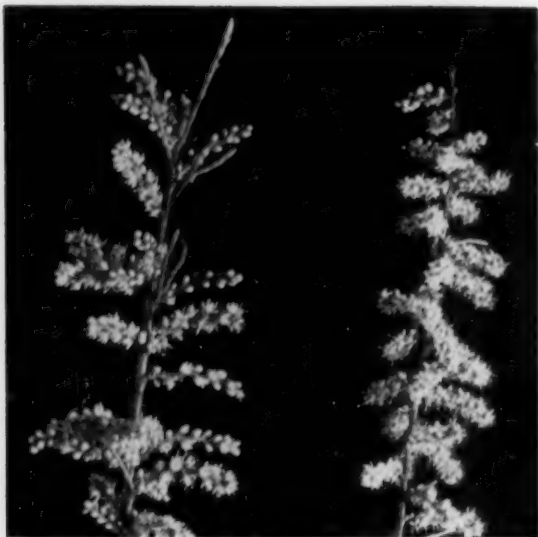
The 4-H Honey Baking Contest is open to all 4-H members carrying a food preparation project. First, second, third, and fourth prizes are awarded in each of five classes—date nut bread, honey fudge cake or spice cake, honey oatmeal cookies, honey custard, and a poster of uses of honey. The best over-all exhib-

itor is crowned Honey Queen and receives an award of \$10.00. Second place receives \$5.00 and third, \$3.00. Grand prize winners are determined by total points earned. Ribbons and honey recipe books are also given as awards. Recipes used are from the American Honey Institute.

Besides this contest other ideas brought up at the "500 Club" meeting were "Activated Honey Displays" showing a panoramic view of the many services performed by bees, honey supplied to school lunches, coaches and athletes told the value of honey in sports, and so forth.

In talks at the meeting in Chicago, Mr. Hood of the American Farm Bureau and Mr. Chester Freeman of the Agriculture Marketing Service, Washington, D. C., emphasized that beekeepers in their various areas must do the job of advertising and promoting honey if a good job is to be done. We can all use these and other means of advertising in our local communities.

Nebraska



Tamarisk or salt cedar (*Tamarix* sp.). Although the honey from it is dark and poorly flavored, it is an important species for carrying bees through the summer in many parts of New Mexico and Arizona.



Mr. V. K. McMasters, Duncan, Oklahoma, with one of his fine colonies.

Traveling with the Lovells

New Mexico and Oklahoma

FROM El Paso, Texas, we drove north to Mesilla, New Mexico.

Irrigation ditches carry water to crops in this arid country and along most of them grew a shrub with tiny needlelike branches called Tamarix or salt cedar, a valuable honey plant in the Southwest. At Texas A. and M. we stopped to see the state inspector, Mr. Poe, who very frankly told us that he was first the milk inspector and had been given the bee job as an extra. We learned later from beekeepers that he is a fine administrator and by selecting good men for field inspectors was doing an excellent job.

Mr. J. W. Powell, the leading beekeeper in Mesilla Park for over half a century, gave us a fine survey of honey and honey plants of the region. The late Frank Pellett had spent several days with him and together they had searched the countryside for honey plants. Among the unusual ones which he had found was sotol, a plant related to the yuccas but with curved spines on the edges of the leaves. It has a tall spire of pale, straw-colored flowers, 10 to 15 feet high. One season his bees made a super or more of honey from it. In parts of Mexico sotol is an important honey plant.

Powell's attractive ranch-type house was kept cool by means of a large water-drip fan. Like other beekeepers we met, he once lost over 400 hives from poisonous cotton sprays.

The weather was so hot and the altitude so high in southern New Mexico that our engine boiled even when we were driving at moderate speeds. A filling station operator told us that this was quite usual and not to worry about it. However, as we drove north we passed into a tall mountain range at an altitude of 9000 feet. The weather became cool and delightful and the vegetation changed from desert plants to evergreen trees.

At Roswell, New Mexico, we looked up Frank Summers, the inspector for the Pecos Valley, and found that he was also raising chin-chillas. When he became an inspector, he was told that some of the beekeepers had threatened to shoot any inspector who came fooling around their bees. But Summers, who comes from a shooting family of Kentuckians, said he never had any trouble and in the end the beekeepers were glad to have their bees protected. Summers gave us a sample of alfalfa honey which contained 2 to 3% of Tamarix honey.

He explained that the latter honey by itself is bitter and has a greenish cast like lubricating oil and will ruin good honeys if too much is mixed in. Once he made several thousand pounds of honey from onions. When it was being processed in the hot room, the smell was so strong that he could not stay around, but when the honey cooled, it had a light color and such a fine flavor that customers came back begging for more.

At Plainview, Texas, we found Mr. Gillespie just coming in from southern Texas with a truckload of bees in shallow brood chambers, screened both above and below for ventilation. His honey store is on the main street of the town. He was accompanied by John Thomas, a 15 year old youth who is much interested in bees. Although dead tired from his long trip, Mr. Gillespie explained his methods of selling honey. He keeps his honeys separate according to floral source. He has several large vats labeled sweet clover, cotton, alfalfa, and vetch. He also sells orange honey from the Rio Grande Valley, horsemint honey bottled by Weaver, and rattan honey put up by Bulay and any other flavors he can obtain. He uses drippless pourers and wooden spoons to give his customers a chance to sample each kind. He starts on the milder flavors and works up to such strong kinds as horsemint and rattan. Gillespie told us that he had more than doubled his sales since he started selling honey by name. When he

extracts a crop he carefully keeps each flavor separate and places it in the appropriate vat. He had a demonstration hive in the front of his store and remarked that he took it with him when he went around the countryside selling honey—it gave the customer confidence. One of his interesting sales stunts is to cut some cotton honey which had crystallized in the comb into strips, three inches long, roll them in wax paper and sell them to kids for a nickel. "It is a good thing to teach kids to eat honey instead of candy," said Mr. Gillespie.

Our next stop was at Duncan, Oklahoma, to see Mr. V. K. McMasters. His wife directed us to his apiary which was several miles out in the country. Here we found him hunting for the queen in a late swarm as he poured the bees

through a queen excluder. He soon captured her and placed her in a queen cage for use elsewhere. He had a beautifully kept apiary with the hives freshly painted and arranged neatly. Mr. McMasters was the most friendly beekeeper it has been my pleasure to meet. He insisted that we have dinner with him, meanwhile describing the honey plants and beekeeping conditions in Oklahoma. The southwestern part of the state has many species typical of Texas such as mesquite, catclaw, and horsemint. Leading honey plants in many areas are alfalfa and hairy vetch. He gave us a sample of vetch honey which was water white with a very mild flavor. This honey almost always wins blue ribbons at fairs for Mr. McMasters. Ethel and Harvey Lovell, Louisville, Kentucky.

made in the amount of insulin the boy received each day. As was the custom before honey at bedtime was started, no fluids were given after 5 P. M. One month later the mother reported the boy had been free from bed-wetting at night. The boy feels good. He had lost much of the feeling of physical weakness he had. There has been no increase in sugar in his urine.

Five years have passed since this boy began taking honey at bedtime to control his night bed-wetting. With the aid of honey he has been free from this trouble. The mother appreciates the dry bedclothes each morning which saves her their daily washing. But best of all there has been a marked improvement in this boy's health. Where there was daily body weakness and much daily fatigue before honey was started, there is now strength and plenty of energy. Nothing else has been changed. The only addition has been the giving of honey at bedtime each day with no increase in the amount of sugar present in the urine from day to day.

Honey and Your Diabetes

No. 8

by D. C. Jarvis, M. D.

AT this time let us consider the use of honey for an eight-year-old boy who developed diabetes mellitus when he was three years old. A daily diet suitable for a boy his age was prescribed. Insulin injections were started and the mother was taught how to test the boy's urine for sugar each day. When eight years old this boy's daily insulin routine consisted of 5 units of U40 regular insulin given in the skin by means of an insulin syringe at bedtime and 17 units of the same insulin given about fifteen minutes before breakfast. Every night this boy wet the bed to the mattress. During cold weather the bedclothes were changed during the night. Bed-wetting by this boy made it necessary to wash the bedclothes each day. This boy's mother had learned that one teaspoonful of honey taken at bedtime would stop bed-wetting at night. She wished to try this treatment but hesitated to do so because her boy had diabetes mellitus. The mother contacted me and asked if her diabetic boy could safely take honey at bedtime to stop his bed-wetting each night. She stated she was willing to try the honey if I thought it best to do so and would test the boy's urine for sugar each day in order to learn whether the

taking of honey at bedtime caused sugar to appear in the urine.

This boy was given $\frac{1}{4}$ teaspoonful of honey at bedtime. It seemed wise to learn how this boy with diabetes mellitus would react to the taking of such a small dose of honey. The next day the mother phoned me that the boy did not wet the bed as much as usual. The urine, when tested the following morning, did not show the presence of sugar.

The second night at bedtime the amount of honey given was increased to $\frac{1}{2}$ teaspoonful. The following day the mother phoned me the boy's bed was dry that morning. There had been no wetting of the bed during the night. There was no sugar present in the urine when it was tested.

The third night $\frac{1}{2}$ teaspoonful of honey was given at bedtime. Again the bed was dry the following morning. There was no sugar present in the urine when it was tested. The dose of honey at bedtime was increased to one teaspoonful. At the end of one week of this dose the mother reported the boy's bed continued to be dry each morning. The testing of the urine each day did not show the presence of sugar in the urine as a result of taking honey. During the giving of the honey each day at bedtime there was no change

An Inspector's Point of View

by Wendell P. Smith

AT one of our Ohio meetings a speaker said our worst enemy is not American foulbrood but ignorance and indifference. He should add carelessness and cussedness. Now we had better add the "medicine men" or "bee doctors." Combine ignorance with any of the classifications, let them feed sulfa and you have a menace.

Some are not only careless in their operations but indifferent to the losses they cause their neighbors. They brag of sulfa feeding but they always have disease in their apiaries and make no efforts to keep from spreading it.

"Cured bees" have a habit of showing disease, even in places where there is no other disease nearby, showing that the "cure" was not permanent. Unwary purchasers of apiaries have suffered heavy losses when they acquired ownership of sulfa fed bees and failed to keep on dosing with sulfa.

We know, from studying the spread of disease in various parts of the state, that American foulbrood may result, directly or indirectly, from the use of equipment from dis-

(Please turn the page)

eased hives. When colonies die of disease and the equipment is stored, it may later find its way back into a bee yard to start another cycle of disease. To prevent this, the Ohio Apiary Inspection Law requires a sale permit before anyone can sell, give away, or barter bees and used equipment. Before a sales permit is issued an inspection is made to determine no disease exists. This protects the buyer and shows good results in checking the spread of disease by contaminated equipment. Some will say, where sulfa is used, that it was not used right. Beekeep-

ers are individualists who do not always do what they are supposed to do. Often they keep bees in immovable comb hives, cross comb hives, boxes or kegs. If they are told to feed sulfa we might as well ask them to paint their hives pea green or heliotrope.

We can do much to correct the lack of knowledge about beekeeping. Our associations should promote beekeeping clinics in beeyards where problems can be seen first hand. The most interesting meetings are those where a hive is opened.

Ohio

Struggles of a Bee Beginner

What I Have Learned

by David King

QUITE a bit of water has gone under the bridge since that cold dismal day in early spring when I bought a hive and made out the order for my first colony of bees.

Looking back over the time, I am able to appraise my experience from the vantage point gained by the passage of a little time. I can see many things wherein I acted rightly; many more wherein I erred and where I would act differently if I had the whole thing to do over.

For one thing, I would never buy another "California Pattern" hive for this region. The bottom board of these hives offers only one fixed opening, unless one cares to use an extra cleat to partly close the already too tiny opening. A much better bottom board, in my opinion, is the "duplex" design which offers two different sized openings, the largest of which would be about right for the height of the summer honeyflows. In addition, of course, a cleat can be used to further restrict the narrowest opening if occasion should demand.

Another very grave fault with these hives is the single lid. Made of a single thickness of lumber, this lid offers comparatively poor protection from either extreme of temperature; and it is easily displaced to the point where it offers poor protection from rain or snow. A much better idea would be one of the ventilated duplex covers which, while offering adequate protection from the radiant heat of the sun and from

the weather, would still offer splendid ventilation to help ripen honey in the summer and to allow escape of moisture in the winter.

Another thing I learned, was that thin super foundation must be fastened at least at top and bottom if one expects to get nice even comb. I fastened my foundation with the top cleat only and much of the resulting comb is crooked with cells on opposite sides very different in length. This makes the combs difficult to handle.

If I were working for cut comb honey again, I would use full sheets of thin super foundation firmly attached top and bottom and (if practicable) on the sides as well. I would use a full set of ten frames in a ten-frame body. Last summer, I used eight frames in a ten-frame body having read somewhere that the bees will draw the cells much deeper and store far more honey in each frame.

This is very true; and undoubtedly if one were working for extracted honey, the extra depth of cappings removed would represent a very good harvest of wax in addition to the honey. However, the bulging sides of the comb projecting beyond the frames are very much subject to damage in handling the frames within the super—and even in moving the super itself. This makes the combs very much subject to dripping and altogether messy. If the face of the comb were more adequately protected by the wooden frame, which it would be if the cells

were not drawn to such a depth, my cut comb honey would be altogether a pleasanter thing to handle.

Not the least of the lessons I have learned from my first season's practical experience is the best method of hiving a new package.

Were I to hive a new package (which I likely will next spring) I would proceed something like this:

In the first place, I would avoid haste. The easier the operator works, the less he excites himself, and the less he will excite the bees. If the bees were to arrive along the middle part of the day, I would feed them through the wire of the shipping package and allow them time to fill up and cool off before introducing them to their new home.

Toward sundown when the bees would normally begin to settle for the night, I would prepare my hive either by removing about five frames from a ten-frame body or else by placing a deep super over the body and leaving all the frames in place.

With the bees fairly well settled, and the package already placed where I intend to leave it, I would finally remove the stopper and the queen cage. This latter I would prepare for introduction by removing the cork stopper over the candy, wedge it in place between two of the frames and invert the opened package over it. This latter, of course, if I were using the deep-super method of hiving. If I did not have an extra super at hand, I would place the queen cage approximately in the middle of the frames that were left in the hive.

In any case it is likely that upon opening the hive some days later, I would find that the queen has been released and that things are progressing normally toward the establishment of a colony.

Cornflower . . .

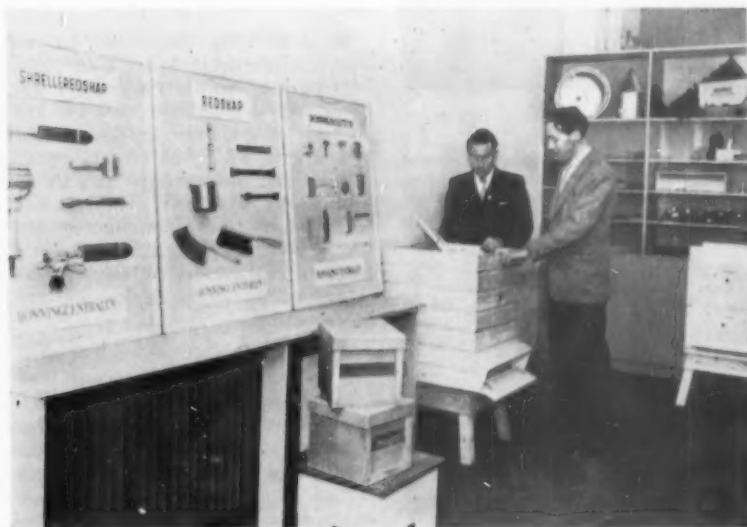
I find no record of bees liking bachelor buttons (or cornflower), *Centaurea cyanus*. But they do seem to be very fond of them. It makes a very white honey and, as the bachelor button seeds itself each year in abundance it makes a good honey plant.

Col. Michel Jacobs, Rumson, New Jersey.

(According to Pellett, the bees work it vigorously although it is seldom important as a source of much nectar because it is not sufficiently abundant.)



Sten Agnalt, at left, in the office of the Central Honey Cooperative in Oslo.



The Cooperative has well equipped laboratories and display rooms and does much education among its members.

Sten Agnalt of Norway

A visit recently from Sten Agnalt of Oslo was a delightful occasion. Sten is a young man here to see how we do things. He has visited associations, manufacturers, cooperatives, schools and universities. His last letter was from Cornell University on the last part of his stay before returning to Norway.

He is the business manager of Honningcentraler, or Honey Cooperative, in Oslo serving the marketing interests of Norway's approximately 8000 beekeepers, with their 50-60,000

colonies with a production of between one and two million pounds of honey annually. The Co-op handles about 75% of the commercial crop. The honey brings about 45c per lb. wholesale in cans of light metal usually covered with transparent lacquer. The honey is packed then in small, decorated, lacquered cans at about double the wholesale price. It is mostly granulated.

The beekeeping area is in the vicinity of Oslo and one region in northwest Norway near the coast at

the 70 degree latitude tempered by the Gulf stream. The greater part of the country is mountainous with considerable timber and many lakes, a beautiful, vigorous country.

Are Bees Trespassers?

James M. Smith, of Las Animas, Colorado, writes us that he has had several of his bee yards depopulated by aerial sprayers. In some cases it was due to spraying crops not attractive to bees with parathion. In other cases it was spraying alfalfa in bloom with various insecticides during the day while bees were flying rather than early in the morning, as is generally considered correct practice.

In talking with aerial sprayers he heard bees classed as "trespassers" and later obtained a copy of "The Swath," an agricultural aviation magazine which he sent to the American Bee Journal.

It gives this account:

"An interesting case involving the aerial application of insecticides concerning the position of the applicator and the landowner when bees have died as a result of contamination from the insecticide occasioned by the bees feeding on the crops so treated. In *Jeans v. Holtz*, the court found for the defendant applicator and landowner on the theory that the plaintiff's bees were trespassers on the defendant's crops at the time they came in contact with poisonous dusts, and therefore recovery was denied. In its decision the court said in part: '... Unfortunately the bees were oblivious to the respective property lines. Their usual custom of examining each blossom to see if it would give forth the usual honey content would probably have been unaffected by the failure of the defendants to give a notice to the office of the Agricultural Commissioner that the lethal poisons were about to interrupt their daily customs and habits and destroy them...'"

In another case the court decided that if the bees were trespassers the plaintiff could not recover.

Mr. Smith adds that he had always supposed that the aerial sprayer should be liable for damages since most farmers only specify that they want a certain crop sprayed for a certain bug. The aerial man usually selects the insecticide, the method and time, which are generally the cause of the injury.



Florida Honey Queen

Miss Joan Gaskin, of Wewahatchka, was chosen by the Florida State Association as the 1955 Honey Queen. The picture was taken at the Honey Exhibits at the Florida State Fair in Tampa and sent in by F. A. Robinson, Secretary of the Association. Commissioner of Agriculture, Nathan Mayo, apparently likes both the Queen and the honey.



Quebec Field Day

Well organized Field Days bring good attendance, as this picture of those attending the Field Day at J. E. Benoit's apiary, Ste. Scholastique, Quebec. Beekeepers come if they have some entertainment and an attractive program. Time for refreshment is also important. Benoit's honey house is well equipped with stainless steel, one of the best in the Province. Attendance was 222 in the afternoon and we served 106 lunches paid for by the Quebec Professional Beekeepers' Association. Similar field days were held throughout the Province.

S. M. Deschamps
Asst. Prov. Apiarist

Rothamsted Experiment Reports from Britain

We have several reprints and reports from the Rothamsted station in Britain which may be of interest to our readers as follows:

By L. Bailey on the extreme effectiveness of the filtration apparatus of the honey bee in separating nectar from pollen in the honey stomach. It is much more effective than in any other species of hymenoptera including bumblebees, wasps and solitary bees, but is quite similar for all honey bees, *Apis indica*, *Apis dorsata*, etc., as well as *Apis mellifera*.

By Bailey & L. Carlisle on trials of various acaricides on *Acarapis woodi* (Bee World).

By Bailey (Journ. Exp. Biology) on the respiratory currents in the tracheal system of the adult honey bee.

By J. B. Free (Behavior) on the behavior of robber honey bees. Robbers have a peculiar flight when approaching a populated hive for the purpose of robbing it. Such flight is not used when the hive is empty of bees and the stores to be pilfered are readily available. Young bees which have never contacted the hive before ape such actions and seem to realize instinctively whether or not the stores in question are protected.

By Elizabeth Carlisle on Biometrical investigations of European and other races of bees (Bee World). Representative bees of many races were provided by Brother Adam in his travels throughout Europe and Africa. Southern races had shorter wings than other races; cubital index was lowest in the most northerly races; bees of southern Greece had longest tongue length, followed closely by Carniolan, Carinthian and northern Grecian; northern races were darker.

By J. B. Free on queen introduction in colonies of bumblebees. When a sufficient number of workers were available to help her, some of the first eggs laid by her developed into queens.

By J. Simpson, on the significance of pollen in the food of the honey bee. It is probable that the food receives an addition to sugary material from the bee's stomach which, in a nurse bee will frequently contain some pollen in the process of being transferred to the ventriculus.

MEETINGS

Utah Annual, Salt Lake City Dec. 2

The annual meeting of the Utah State Honey Producers Association will be held on Friday, December 2, at the Temple Square Hotel in Salt Lake City. An outstanding program is being planned with out-of-state and local speakers. Detailed programs will be sent to Utah beekeepers. Others interested may contact M. Levin, Campus Box 80, Logan, for more details.

Marshall D. Levin,
Program Chairman

Oregon Annual, Corvallis Nov. 29 and 30

The Oregon State Beekeepers Association is holding its annual convention November 29 and 30, 1955, at Corvallis, Oregon. The sessions will be held on the campus of Oregon State College in the Food Technology Auditorium. A full program of first hand studies in beekeeping and allied subjects is being planned. Anyone interested in beekeeping is cordially urged to join with us.

Oliver Petty, Secretary

Midwestern, Kansas City, Mo. Nov. 13

The Midwestern Beekeepers' Association will meet at the I.O.O.F. Hall, 812 Westport Road, Kansas City, Mo., on Nov. 13 at 2:30 p. m. "Planting of Honey Plants" will be under discussion; nominations for 1956 officers; door prize; questions and answers. Refreshments will be served.

Mrs. William Brite, Secretary

Eastern Apicultural Society New York City, Nov. 12

The Eastern Apicultural Society plans a fall meeting of officers and delegates Saturday, November 12, 1955 at 10 a. m. in room "F" of the Hotel McAlpin, Broadway and 34th Street, New York, N. Y.

All delegates are to come with plans and suggestions for our main summer meeting, also a plan for our permanent organization. We hope each state association can be represented.

Morine V. Manchester,
Secretary

Manitoba Annual, Winnipeg Nov. 17 and 18

The annual convention of the Manitoba Beekeepers Association will be held at the Airport Hotel in Winnipeg on Thursday and Friday, November 17 and 18.

D. R. Robertson, Secretary

Westchester (N. Y.), New Rochelle Nov. 20

The Westchester County Beekeepers Association will hold its next meeting at the Odd Fellows Hall, 20 Lockwood Avenue, New Rochelle, N. Y., on Sunday, November 20 at 2:30 P. M.

At this meeting we will have our "Annual Honey Show." Each member may have an entry in the following classes: light, amber and dark extracted honey in one-pound jars only. Chunk and comb honey; best wax in round or square form. Ribbons will be awarded for 1st, 2nd and 3rd prizes in each class, and special prizes will also be awarded.

This year we plan to have children take part in this contest. It was decided that each member's children, nieces and nephews or grandchildren would be invited to enter in the poster contest. They can draw or make pictures on anything pertaining to Bees or Honey. Awards will also be given to the children.

Let's all come out and make this an enjoyable afternoon. Visitors are also welcomed. Refreshments will be served.

Mrs. Alfred Booth, Publicity

Annual Federation Convention Biloxi, Miss., Jan. 23-26

The annual convention of the American Beekeeping Federation will be in Biloxi, Miss., Jan. 23 through 26, at the Buena Vista Hotel. Biloxi is a modern city of 38,000 people and it is easily accessible. If you wish to stay at the Hotel it is necessary that you get a reservation early as a very large crowd is expected. Also there are 2500 additional accommodations in the coastal communities, including several modern hotels.

W. W. Wicht,
Chairman, Host Committee

Montana, Livingston, Dec. 2 and 3

The Montana State Association will meet at Livingston, Dec. 2 and 3 in the Masonic Building. The theme of the meeting is sanitation and marketing. The beekeepers will again donate honey to all restaurants and cafes to be served during the convention. President Lester W. Hall is arranging for an interesting program.

Mrs. O. R. Burdett, Secretary

Florida Fair, Tampa Jan. 31-Feb. 11

The Florida State Fair will be held this year as usual in conjunction with the Gasparilla Celebration on Jan. 31 to Feb. 11 at Tampa. Those visiting down that way at that time should avail themselves of the opportunity of the double celebration.

Norwegian Ski Records Plug Honey



FRA LØYPA —

Norgesmesteren Martin Stokken
uttaler at honning må til når
en skal til topps.

NORGES BIRKTERLAGS
EKTE HONNING
BLONSTENES GYLNE GAVE
Garantert av
HONNINGCENTRALEN

If you can read this, good. If not, perhaps you can get the meaning which is that housewives should use honey for energy and strength since athletes score when they use it. Good argument. (From Sten Agnalt, Norway's Central Honey Co-operative.)

Objectionable Honey

D. W. A. Seal, a New Zealand beekeeper, writes us that honey harvested from the kamahl in his country is unsuitable for market unless enough better honeys can be obtained with it for a blend.

In the September 8 issue of the *British Bee Journal* is a complaint of the ragwort because its prevalence is increasing. There are regulations that the weed must not be tolerated, but it is hard to enforce generally. Ragwort is commonly called "stinking weed," and the honey from it is seemingly vile.

Now from Florida comes complaints of the capeput tree. It seems that landscape gardeners are recommending it since it makes a good shade tree, is easily started and easily grown. Pellett, in *American Honey Plants*, describes the nectar as "mild with distinct flavors." Beekeepers confronted with it in late winter and early spring say his words are entirely too mild, and that the plant is apt to menace the flavor of their finer honeys unless the promiscuous planting is kept within bounds.

Of course our beekeepers along the Mason and Dixon line from Virginia to Oklahoma and Texas take as a regular "dose," the bitterweed whose nectar is as the plant's name indicates. Fortunately the bloom of this plant occurs in late summer when most other flowers are not prevalent, but care must be taken to get off the early honeys before this plant blooms. Even then there is some mixture, especially with an early blooming season for the aster. Fortunately bittersweet honey does help fill the hives and is not objectionable for wintering.

The mountain laurel of the eastern mountains has at times had the reputation of producing a poisonous honey in spite of its good flavor. The late C. L. Sams, who for years worked in extension service with beekeepers in North Carolina, paid little attention to the insinuations, although he did tell the writer of getting sick for a few minutes after having eaten what he claimed was too much and too green mountain laurel honey.

Editorial

Don't Give Away Your Honey

The Executive Committee of the American Beekeeping Federation in session at Denver in July directed its secretary, Robert Banker, to prepare a letter to beekeepers. This release pointed out the following market and crop conditions:

"The honey market this past season has, as you know, steadily advanced to the point where good white honey held until late winter and early spring brought from 13 to 16 cents. There is no carryover of 1954 crop honey. Normally we have a 15 to 20 million pound carryover. Even with a large 1955 crop there apparently would be no surplus. Imports of honey have been higher than normal to fill the demand. Industry has just announced major wage increases. The Federation's Marketing Committee activity will be greatly increased. Taking these favorable market conditions into consideration, it would seem with good participation in the promotion program at the producer and packer level and orderly marketing, honey should continue to move at a good price."

The letter continued to urge honey producers to hold their honey for a good price and to take advantage of the loan and purchase agreement program, if funds were needed to finance their operations. The *American Bee Journal* endorsed this fully.

The result has been that the honey market has remained firm in spite of a larger crop. The price has held up and continues that way. Canada has helped by taking a large quantity of honey at good prices from the northern tier of states, particularly. The Federation and the American Honey Institute stepped up their honey promotion programs, and producers and packers cooperated at their levels. Marketing, in general, has been orderly.

So—there is more reason than ever now to believe that honey should continue to be in demand and command a good price. Consequently, there appears to be absolutely no reason for any honey producer to give away his honey—to take less than a good, going market price.

In spite of conditions and in spite of all that has been written and said, we hear of a few lots of honey being sold for less than the current market warrants. Any producer who is guilty of so doing, becomes a major factor in upsetting our honey markets and is contributing thereby to his own undoing as well as that of others.

Not being informed of what current market prices are for each type and kind of honey is absolutely not an excuse for this. The bee journals monthly include crop and market reports and by simply writing a 2-cent post card to the Market News Branch, Fruit and Vegetable Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C., you will receive free a semimonthly report giving the current market prices for honey throughout the country at both wholesale and retail levels.

Cookies Made with Honey . . .

A new booklet from American Honey Institute, at ten cents per copy, twelve for a dollar. The back page has been left free for imprinting. This booklet has a self-cover done in red and blue. It has a drawing of a little girl standing on tip-toes reaching into the cookie jar. There are three stars with "Honey Cookies—PACK BETTER, KEEP BETTER, TASTE BETTER." Why not plan to distribute these books at holiday time to your customers? Better still distribute them now. Mothers will want to use Honey cookies in the school lunch box.

How to Throw a Waxing Bee

How about a new type of party? That's the theme of a booklet put out last year by Johnson's Wax. It was released to 31,000 women's clubs all over the country. To date because of this one ad 100,000 copies have been distributed. The title: "How to Throw a Waxing Bee." Combined with a unique idea for having fun, the booklet features a recipe for making delicious Honey Date Bars. Also included are selected menus, all with honey as part of their main constituents.

American Honey Institute
Madison, Wisconsin

American Bee Journal

The Power of the Written Word

by Colin A. Bibler

WE beekeepers are overlooking a large potential honey market in our own backyard simply because we aren't getting the word HONEY out where it can be seen. This feeling was emphasized recently when a neighbor said to me, "When I think of honey I get hungry for it so I get some, but I seldom think of it." I wonder how many potential customers we have who would buy gladly if only they were reminded that there is a food called honey. "Out of sight, out of mind" is more true than we realize.

In this day of heavy advertising the housewife is overwhelmed by the ballyhoo merits of many foods, so that the simple and more basic foods are crowded out of her mind and go a-begging. A good example of this is milk. This is a basic food like honey. For years the dairy industry has been sustained by government subsidies and price supports. There have been large surpluses of milk and butter in spite of the rise in our population. Why don't we drink more milk? Simply because it has not been pushed.

Recently the dairy industry experimented with a sales campaign in several large cities. Milk, in word and pictures, was put before the consumer and its natural advantages listed. The results of this experiment seemed to prove that more milk could be sold than was thought possible if it were brought to the consumer's attention and placed where the consumer could get it easily. Not only did milk sales rise but milk, sold in competition with soft drinks, did not cut the sale as had been feared.

The parallel between milk and honey is a close one. Although the decline in honey sales and price has never reached the proportions of milk we are moving along the same path. The sale of honey has never been centralized as in the case of milk and it is only perhaps because of that fact that we can sit back and say, "There, but for the Grace of God, go I." It is this centralization, however, that is providing the means of overcoming the dairy industry's troubles. They have a powerful sales organization that can put out advertising that may do away with dairy price supports.

Every honey producer should ponder

this matter of advertising. Everyone should ask himself if he is doing everything in his power to promote honey. Too often the small apiarist hasn't even a sign out front to show that honey is being produced there. If all producers, packers and allied industries would get behind an effort to bring honey and its merits before the consumer we might even be forced to expand to keep up with the increased demand. Let us all be active supporters of honey.

The Lavender in France . . .

H. Dromard, in the September "L'abeille de France" picturesquely describes the production of lavender in France. The plants grow only in a concentrated region comprising the provinces of Var, Drome, Basses Alpes and Haute Alpes, at elevations from 1200 to 1800 feet for Lavender latifolia and up to as high as 5000 feet for Lavender officinalis. As the plants are self-sterile there is considerable hybridizing where the cultivation of the two overlap.

Partly due to the attraction of the bloom and partly because it is hard to overstock with bees (as well as the fact that there is little other bloom to attract them at the time) there is a veritable flood of bees moving into the lavender before the 45 days of bloom in July and August. Mr. Dromard describes the scene as one of "four furies": the fury of the growers (in some sections over half the land is in lavender); the fury of the beekeepers over locations; the fury of the bees themselves; and finally the fury of the visitors who come to observe the other three "furies."

Literally hundreds of thousands of colonies are trucked in. A hundred to 200 colonies in a place are common. He reports that one beekeeper had all his 800 colonies in one place. Most beekeepers depend on the crop alone for their reward, but some of the older and better established beekeepers have arrangements for a certain rental in case the honey crop fails which is not an unusual occurrence.

The story reminds one of the buckwheat region in Pennsylvania and New York years ago. There E. W. Alexander at Delanson, N. Y., was said to have 700 colonies in one location, in the days when the bulk of the honey was sold abroad in wooden kegs.

M. G. Dadant

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Canadian Bee Journal

Streetsville, Ontario, Canada

1956

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LEASE OR SELL, cash, 500 colonies, John Yanik, 16036 Edmore, Detroit 5, Mich.

8 M 4x5x1-% sections at \$10.00. 1 M each fence separators and holders at \$40.00. Geo. Warr, 5759 Grand Ave., Riverside, Calif.

FOR SALE—700 10-frame colonies with supers and all equipment. 40' x 100' whse. Complete bottling outfit. Alex N. Nyland, Centerville, Wash.

SHALLOW SUPERS—125 10-frame supers with drawn comb. Almost new. No disease. Best offer takes. E. F. McClain, 273 Hamlet St., Lemoore, Calif.

400 colonies 10-frame, each 4-story with drawn comb. No disease. \$12.00 each. Honey Lee Apiaries, Godfrey, Ill.

FOR SALE—100 colonies bees. Also wild Canadian geese. 46 years' experience. Roy Mitchellbrook, Rt. 4, Kilmundy, Ill.

1000 hives of bees in Iowa and South Dakota. Will sell all or part like rent. Heavy winter stores. 1955 inspection certificates. Extra good 10-frame lock corner, 4½ stories each. See L. D. Taylor, Harlan, Iowa, or write or see the owner, O. L. Taylor, 621 East Ramsey, Banning, Calif.

FOR SALE—Old Taylor Honey Company honey packing business. See display ad page 420.

FOR SALE—8-frame Root equipment for 700 colony apiary. Write for details. E. H. Wadleigh, Monte Vista, Colo.

HONEY and BEESWAX WANTED

WANTED—Any quantity amber honey. Russell Griggs, Hancock, Iowa.

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WHITE CLOVER HONEY in sixties. Ralph Gamber, 910 State, Lancaster, Pa.

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4-H Clubs in North Carolina



This picture shows one of the high performance 4-H Club teams in beekeeping in North Carolina. At our meeting in Chapel Hill in March we appointed three beekeepers to act as a committee for sponsoring a 4-H project in beekeeping. One of the committee set up a project at a 4-H camp last year, went there frequently and demonstrated to the 4-H'ers how to handle bees. This year we have the project established. Elimination contests were held in 6 districts and successful contestants came together at State College for a final contest. We might well sponsor a bee chain similar to the poultry and sheep chains where a boy keeps an animal for a time, then returns it to the club sponsoring the project. Perhaps the boy could furnish the bees and the sponsor the equipment. Perhaps the first year the boys would get just starting equipment; the second year more needed equipment, and so on. Girls could just as well participate the same as the boys. We would welcome suitable sponsors for such a procedure.

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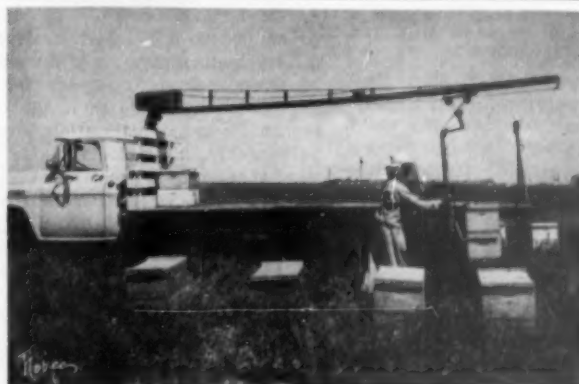
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CROPS and MARKETS

by M. G. Dadant

Preliminary government estimates would indicate that the honey crop for 1955 is about 12 per cent greater than in 1954, with a total of 243,000,000 pounds. Should these prove out, it would be in spite of the fact that practically all western areas are short this year over 1954. The only sections which are a little better are perhaps the San Luis Valley in southern Colorado, the western and southwestern slope of the Rockies, and possibly some Montana sections, although the Montana crop generally is about 80 per cent.

The increase would have to come from the central western areas largely and that is undoubtedly the case. Some sections of the Central West are reporting three times the crop of last year and very few are under 50 per cent over the 1954 figures. Even in the eastern areas, the crop is better than last year, although a very disastrous winter brought fewer bees for the harvest.

Generally, we might say that New England is better although the Champlain Valley of Vermont is lighter. All the southeastern states are short except in the western mountainous sections and the southern states likewise, including Mississippi, Alabama, and Louisiana are short of a year ago. Florida has dropped from second place in honey producing to fifth place, and Iowa and Wisconsin in order have gone to third and fourth place, with California and Minnesota occupying first and second.

The plains areas generally are better than a year ago, although the western sections are short, owing to drought. As stated before, the Central West and extending down into Arkansas, Tennessee and Kentucky show the big advantage over a year ago in total crop. Georgia has been almost a complete failure and the Carolinas only moderately better.

All in all, it seems hardly possible that there is a 12 per cent greater crop than last year in view of the shortages, and in view of the fact that the shortages occur in the heavy crop regions. However, one thing is admissible, and that is, that the good crop sections are holding and can

hold their harvest without having to throw it on the market at a reduction in prices as in many cases has been true in the far western areas. In addition, the honey this year is above average, much of it being white to water white where usually it was straw light to light amber.

Condition of Bees

Owing to a fairly continuous flow from fall sources, although not a big one, the bees are going into winter in excellent shape in practically all sections of the country. This perhaps excludes some of the western parts of our plains states and some sections of the South where the crop was a failure. However, the better conditions under which the aster and late flows occurred have made for a "fill-up" on the part of colonies and for better conditions generally.

Condition of Plants

Equally well, honey plants are in better condition than they were a year ago, particularly in many parts of the white clover and sweet clover regions. The rains arrived too late for a good seeding of the legumes in the plains areas, and here conditions are doubtful, although very late rains have improved considerably.

In all other sections of the country including the Southeast, conditions are undoubtedly better than they were a year ago, although by far from ideal.

All in all, it looks like bees would go into winter quarters in quite satisfactory condition with ample young bees and good stores of honey. The same conditions prevail in the Canadian provinces, although the Ontario and Quebec crops are short of last year. As a matter of fact, Saskatchewan seems to be the only province, together with Alberta, which reports the equal or a little better crop than last year. This probably accounts for the early purchases of honey from our northern states to be imported into Canada to supply their demand.

Honey Wanted— Cars and less than car. Top Prices.
C. W. Aepler Co., Oconomowoc, Wis.

Honey Prices

Some very early quotations on honey have indicated that the price might be about the support price on good white honey. However, this condition did not remain long. The demand for honey for export combined with the Canadian demand, and a very good domestic demand, boosted honey prices very early above the support price.

Soon it was apparent that in most of the central and eastern areas, 14 cent honey was not only a possibility but a fact and lately we learn of two truckloads of western honey being delivered at a price of 16 cents, apparently for Canadian importation. Also quotations of 14 cents for good white honey f.o.b. shipping point are general. This would look like about the standard, varying a little as we go farther west, although a west coast stock of their own state's white honey is practically exhausted and they are having to seek farther east for white honey both for export and for domestic packing.

All in all, the picture looks rosy, not only for the sale of honey for the 1955 crop, but for the possibilities for 1956 as far as condition of bees and honey plants is concerned.

We will look with interest on the final report of the government on the actual total crop. We think the preliminary report is slightly above what has actually been produced owing to a reduction in the number of big producers.

Canadian Progress Report

A forty-page report from the Dominion Experimental Farm at Ottawa concerns its Apicultural Division, under Dr. C. A. Jamieson. It covers the period from 1949 to 1953.

The number of colonies in Canada has diminished from 437,000 in 1949 to 341,000 in 1953, with a drop in honey production from 31,000,000 to 26,000,000 pounds. The high for the Dominion was 41,000,000 in 1951. The report discusses pollination studies, particularly in red clover; also toxicity of insecticides to honey bees on legumes; honey flow rates; honey processing and recrystallization; processing equipment; comb sterilization; bee diseases, with the stress on Nosema and its treatment; and colony management. We assume that copies of the reports may be obtained by writing Dr. Jamieson as above.

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